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DEPARTMENT OF THE INTERIOR

FRANKLIN K. LANE, Secretary

MANUAL
OF
UNITED STATES
RECLAMATION SERVICE
(EDITION OF 1917)

A. P. DAVIS, Director and Chief Engineer
WILL R. KING, Chief Counsel



WASHINGTON
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1917

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FOREWORD.

This Manual is a revision of the edition issued under date of February 15, 1913, and embodies the changes or corrections which have been suggested or made necessary by new enactments and regulations in the interval from the time of issue of the 1913 edition to the end of May, 1917.

This edition contains the substance of a large number of memoranda, circular letters, general orders, and general and special instructions issued from time to time during the years of growth and development of the Reclamation Service since its organization. It also includes the Operation and Maintenance Use Book, with the exception of the accounting sections and forms.

The arrangement of the present edition differs somewhat from the strictly alphabetical arrangement of the 1913 edition. In the present edition the subjects under consideration are classified under four main heads, namely, Administrative, Engineering, Legal, and Operation and Maintenance (Use Book). The sections on accounting, appearing in the previous Manual, will be published in a separate volume.

Any manual of this kind is necessarily more or less ephemeral and must be modified at short intervals. Accordingly the Reclamation Commission decided that this edition should be issued in loose-leaf form, with the idea of bringing the Manual up to date quarterly or at other stated intervals.

This edition takes the place of all former memoranda, circular letters, general orders, and other general instructions, and is to be considered as authoritative, except as modified hereafter from time to time by instructions issued from the Washington office.

THE HISTORY OF THE
CITY OF BOSTON

The history of the city of Boston is a subject of great interest and importance. It is a city of many centuries, and its history is full of interesting events. The city was founded in 1630, and has since that time been a center of commerce and industry. It has been the seat of many important events, and has played a large part in the history of the United States. The city is now one of the largest and most important in the world, and its history is a subject of great interest to all who are interested in the history of the United States.

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ADMINISTRATIVE.

ACCIDENTS.

Accidents involving loss of life or property or extraordinary incidents should be reported promptly to the Washington office by wire or mail, with copy to the Denver office, giving the principal facts and sufficient information to enable these offices to answer ordinary inquiries.

ADMINISTRATIVE ORGANIZATION.

1. **Secretary of the Interior.**—The Reclamation Service is under the direction of the Secretary of the Interior. He is responsible to Congress for operations and expenditures under the reclamation acts as well as for action concerning public lands in connection with the reclamation work and the appointment of employees. His approval of all important features must be obtained in advance.

WASHINGTON (D. C.) OFFICE.

2. **Reclamation Commission.**—An office is maintained in Washington as the headquarters of the service. This office is in charge of the Reclamation Commission, composed of the director and chief engineer (chairman), the chief counsel, and the comptroller. These officers determine matters of general policy and recommend appropriate action thereon to the Secretary of the Interior; but no action of the members, individually or collectively, becomes effective unless it is in pursuance of authority previously given by the Secretary of the Interior.

3. **Director and chief engineer.**—The director and chief engineer is the executive officer of the service. He governs and controls all employees engaged in investigating, constructing, operating, and maintaining projects. He issues all instructions required to carry out approved policies and for executing the necessary work through the executive office at Denver. He controls an administrative examination of all accounts in Washington. He has power to sign any contracts and make any commitments authorized by the Secretary of the Interior and has control of all employees except those under the chief counsel.

4. **Chief counsel.**—The chief counsel is the head of the legal division and conducts all investigations involving the legal rights and privileges of the service. He controls all employees of his division, corresponding direct with the district counsel in regard to legal affairs, but communicates with the executive department through the director and chief engineer and regular channels.

5. **Comptroller.**—The comptroller is the head of the inspection division and conducts the inspection of fiscal practices and accounts. For this purpose he controls a force of inspectors and accountants to insure the thorough inspection of methods and practices and audit of the accounts kept in all offices of the service, and to collect and

compile information as to fiscal affairs required by the Secretary of the Interior and the service. The comptroller advises the director and chief engineer of all irregularities and the latter rectifies the matter through regular channels.

6. Legal division.—The legal division handles all land and legal matters pertaining to the service. (See also District counsel, instructions to.)

7. Engineering section.—The engineer in charge of the engineering section assists the director and chief engineer in the handling of correspondence and administrative details of an engineering nature, supervises the designing and drafting work of the office, the review and publication of plans and specifications, and the compilation of construction records and statistics. A reference library in the section contains several thousand volumes of project histories, specifications, cost data, engineering investigations, United States Geological Survey water supply papers, State engineers' reports, technical periodicals, and technical books on irrigation.

8. Accounting section.—The chief accountant in the Washington office has general supervision of all fiscal and accounting matters of the service and reports to the director and chief engineer. He also has charge of all accounting and cost-keeping records in the Washington office. The clerical employees handling accounting matters who are located in the field offices are under the administrative direction of the project managers.

9. Examiners of accounts.—The examiners of accounts, or fiscal inspectors, travel from project to project, reporting to the comptroller upon the efficiency of the fiscal work in the field and upon the personnel engaged in this work, together with all other matters upon which the director and chief engineer may call for report. The engineers in the field should cooperate with the inspectors and render them all necessary assistance.

10. Reclamation settlement section.—The statistician in charge of the reclamation settlement or information division has charge of all matters pertaining to the dissemination of information concerning the lands and opportunities for home-making or procuring reclaimed lands.

11. Chief clerk.—The chief clerk is in charge of the supplies, mails and files, appointments, and stenographic sections, the messenger, janitor, and elevator services.

DENVER (COLO.) OFFICE.

12. Executive office.—An executive office is maintained at Denver in charge of the chief of construction, who is appointed by the Secretary of the Interior on the recommendation of the director and chief engineer. All matters relating to the management and execution of

the work in the field pass through the Denver office, except when, in the opinion of the director and chief engineer, an emergency or special conditions warrant a departure from this practice. Under the latter circumstances copies of all instructions are forwarded promptly to the Denver office for its information and files.

13. **Chief of construction.**—The chief of construction represents the director and chief engineer in the field and is in charge of all matters relating to the management and execution of the work in the field and all employees engaged in the construction, operation, and maintenance of the projects and works incident thereto. All instructions issued from the office of the chief of construction on administrative and engineering matters relating to the management and execution of the work in the field are issued over the signature of the chief of construction or the acting chief of construction in case of the absence of the former from the office.

14. **Assistant chief of construction.**—The assistant chief of construction acts as principal assistant to the chief of construction and is senior engineer for the central division.

15. **Office engineer.**—The office engineer assists the chief of construction on engineering details, examines contracts and specifications, and supervises the inspection of materials purchased under contract.

16. **Drainage engineer.**—The drainage engineer assists the chief of construction on drainage matters and acts in an advisory capacity to the project managers on drainage problems. When there is apparent need of drainage or assistance is desired in working out details of drainage investigations or construction, the project manager should call the matter to the attention of the chief of construction, who will authorize such studies, investigations, and assistance as may seem necessary.

17. **Electrical engineer.**—The electrical engineer advises the chief of construction on mechanical and electrical engineering matters and supervises the design and examination of plans submitted for approval of permanent mechanical and electrical installations. He also acts in an advisory capacity to project officers on the construction and operation of such installations.

18. **Designing engineer.**—The designing engineer supervises all designing and drafting done in the Denver office and acts in an advisory capacity in the examination of all plans and designs submitted for approval with the exception of mechanical and electrical work.

19. **Cement expert.**—The cement expert supervises all work in connection with testing and shipping cement.

20. **Chief clerk.**—The chief clerk has charge of the clerical division including mails and files, stenographic, disbursing, bookkeeping, and fund accounting.

21. **Purchasing agent.**—The purchasing agent supervises all purchases made through the Denver office and has charge of the purchasing division.

22. **Cost and property section.**—The officer in charge of this section supervises costkeeping methods of the service, maintains files of all project cost reports, and compiles and assembles data from cost reports in such manner as to afford proper information and comparison. He also has oversight of all equipment, arranges transfers and maintains records of all equipment, materials, or supplies available for transfer on the various projects, and keeps a record of all nonexpendable property for which the various projects are accountable. He makes periodical inspection to enable him to advise as to the suitability of equipment when transfer is considered, makes recommendation when new equipment is purchased, advises as to care of equipment, and instructs as to disposition of surplus or worthless articles.

PROJECT OFFICES.

A local office is maintained on each project, in charge of a project manager or engineer, who controls all the employees engaged in the construction or operation of the project and who is held strictly responsible for the economical and efficient administration of the project office.

23. **Senior engineers.**—For convenience of administration and report the arid region is divided by the Reclamation Service into four divisions, namely, Northern, Pacific, Central, and Southern. In each division is located a senior engineer in charge of one of the important projects in that division, who is expected to be more or less familiar with the problems in all of the projects of his division, and to be available for consultation in connection therewith upon short notice, although his time is given mainly to the management of the project where he is located.

24. **Project managers.**—Project managers are in sole and responsible charge of all work on their respective projects and such territory contiguous thereto as may be assigned by the chief of construction. They report to the chief of construction and receive from him all instructions in regard to administrative and engineering details in connection with the management and execution of the work in the field.

25. **Project employees.**—On each project under the direction of the project manager or engineer are employed irrigation superintendents, engineers, and assistants assigned to particular features of the work, a chief clerk, fiscal agent, bookkeeper, and other necessary clerks, mechanics, and laborers.

26. **Chief clerk.**—The chief clerk will report to the project manager and will be in charge of all clerical employees in the project office; he will make necessary recommendations affecting the status of such employees. The chief clerk is in responsible charge of all accounting for the project, and should also be in charge of the office building, headquarters and visitors' sleeping quarters, headquarters mess and grounds. He should open all official mail addressed to the project office, stamping each letter with the date of receipt and making necessary reference marks. He should carefully sort the mail, giving to the project manager all letters referring to administrative or technical matters, and distributing to the different clerks, whose business it is to properly consider and handle them, all letters relating to accounting and cost keeping. The chief clerk should frequently consult with the project manager on bookkeeping and cost keeping matters and should, under the instructions of the project manager, settle all questions affecting accounting matters for the project. He should also be familiar with all of the work on the project, in order that he may have no trouble in compiling costs from the data furnished from the field. The chief clerk should exercise care at all times to see that there is no duplication of work in the affairs under his supervision.

27. **Purchasing agent.**—The purchasing agent should make all purchases for the project, and other employees should place no orders that have not gone through his hands. He should receive requests for purchases, send out advertisements for proposals, award field contracts, and place orders with merchants. (See also Purchasing.)

28. **Transportation clerk.**—The transportation clerk should attend to the receiving and sending of freight and express, wagon hauling, and passenger transportation. He should keep a complete record of bills of lading and transportation requests, and should work in conjunction with the purchasing agent. Generally, it will be found best for him to report directly to the purchasing agent.

29. **Forwarding agent.**—On some projects the employment of a forwarding agent may be desirable. Such an employee will generally be necessary on projects located several miles from the nearest railroad station. The duties of forwarding agent will consist largely of superintending the receipt and forwarding of freight and express, loading wagons, aiding the purchasing agent to obtain proposals and place orders, and generally in representing the purchasing agent, to whom he should report.

30. **Storehouse clerk.**—The storehouse clerk should receive and receipt for all material, supplies and equipment intended for use on the project, make requests for purchases on the purchasing agent, issue material and supplies on requisitions, and keep complete records of all storehouse transactions. He should keep a complete record

of the quantity, condition, and location of all equipment on the project.

31. **Mercantile store clerk.**—The clerk in charge of a mercantile store should make requests for purchases on the purchasing agent for all supplies intended to be sold. He should keep complete records of receipts and sales, and will be accountable for the proper management of the mercantile store.

32. **Stationery clerk.**—The stationery clerk should receive and issue on requisition all stationery for the project and should keep a complete record of amounts received and issued and of the stock on hand. He should make requisition through the purchasing agent on the Washington office for all stationery required and should be held responsible for any shortage in the stock of stationery.

33. **Bookkeeper.**—The bookkeeper should be in complete charge of the account books kept on the project, including voucher register, cost and general ledgers, and all auxiliary books, and should be responsible for the records of the receipt and issue of stores, coupons, meal tickets, etc. He should frequently consult the cost keeper and chief clerk to see that all necessary data are being received from the field. He should prepare monthly bookkeeping reports for the project manager, chief of construction, and for the Washington office.

34. **Pay-roll clerk.**—The pay-roll clerk should receive all time books and time checks; prepare pay rolls; and, in order to avoid duplication, check services on time cards and charges for meals on travel and field expense accounts. He should prepare all communications to timekeepers in regard to their work and should have charge of any open pay rolls. He should be an intermediary between the employee who is to be paid and the special fiscal agent. The pay-roll clerk should take care of and file all personnel records, such as papers relating to appointments, applications for employment, transfers of employees, contracts with employees, etc., and should also be responsible for the accuracy of service, travel, and field expense accounts that pass through his hands. He should keep a complete card index of all employees on the project, giving name, address, designation, rate of pay, address of parents or person to be advised in case of accident or death, and a statement of the time worked each month should be entered thereon. This record should be kept up to date to avoid duplication of pay, and ultimately to form a part of the personnel records of the project office. Contracts for the hire of teams, wagons, etc., should be prepared under his supervision, and when the language used in the contracts is practically the same, time may be saved by mimeographing a number of these forms.

35. **Cost keeper.**—The cost keeper should collect current cost data intended for the use of the project manager and should see that cost records are kept up to date. The method of obtaining these data is

set forth in the instructions relative to cost keeping in the Accounting Manual. The cost keeper should confer frequently with both the bookkeeper and the chief clerk and see that lists of necessary bookkeeping accounts, with their account numbers and instructions are sent to the engineers, superintendents, and others who are in charge of work on the project. When new work of any character is contemplated, the cost keeper and the chief clerk should hold a conference with the project manager and other officials in responsible charge of work to determine just what cost data are to be kept. At least once a month the project manager, cost keeper, and chief clerk should review cost records in order to ascertain if satisfactory information is being secured regarding the character of the work already under construction. The cost keeper should spend as much time as practicable on the work, so that he may study existing conditions and anticipate the wishes of the project manager and other officials in responsible charge of work regarding the collection of better and more detailed cost information. He should maintain all cost records in a convenient form so that the project manager and other officials in responsible charge of work may always be in a position to improve existing methods and stop unnecessary expenditures. The cost keeper need not necessarily be an engineer, but the assignment of a young engineer to this work is desirable, because an engineer will usually be better informed as to methods and because of the educational advantages of this work. The cost keeper should report directly to the project manager.

36. **Special fiscal agent.**—The special fiscal agent should pay duly certified accounts after auditing them as to correctness of form, etc. He should pay all accounts promptly, for prompt payment means, as a rule, lower prices, and he should aid the purchasing agent in obtaining cash discounts by disposing of routine business in a prompt and businesslike manner. The special fiscal agent should also collect and receipt for all money that is required to be paid to the United States and see that it is accounted for in a proper manner. He should be provided with a safe or vault for the safe keeping of his check books and other valuable books and records, and he alone should have access to it or to that portion assigned to him. He should have absolutely nothing to do with the making of purchases or the preparation of vouchers, and he should be surrounded with every possible check that would tend to safeguard the Government's interests as well as his own. Wherever practicable, he should in person deliver checks to payees, and should never intrust these to the timekeeper, foreman, or anyone else having duties connected with stating or certifying the accounts for which the checks are in payment. He is available for general clerical work when the fiscal work does not require his entire time. The

special fiscal agent may be frequently importuned by merchants and others to act as their collector, or to protect them against loss in the transaction of business with Government employees; but under no circumstances should such an arrangement be permitted. As the special fiscal agent may on short notice be moved from point to point in the field, it may be convenient for him to use a press-copy letter-book for keeping copies of his letters. This book, together with such letters as he may receive, should remain in his own custody while he continues to serve as special fiscal agent on the project, and thereafter should be filed as directed by the project manager, so that they may become a part of the project office records. All mail from the Treasury Department, addressed to a fiscal agent who has left the service, should be opened by the project manager and reply made. The statement of disbursing account should be checked and retained until all outstanding checks have been cashed. The Treasury Department should be notified in case of any differences.

37. **Stenographer.**—The stenographer should perform the usual duties of this position, should handle such letters as are not disposed of by other clerks, should have charge of the letter and bill files, and do general clerical work.

38. **Timekeeper.**—The timekeeper should keep a record of the time of all persons and animals employed, submitting the same in time books or time checks to the pay-roll clerk. He should also record deductions from pay-roll accounts for meals furnished, mercantile store coupons, rent, hospital charges, etc. He should not be allowed in any case to distribute the fiscal agent's checks to employees.

39. **Steward.**—On some projects where one or more large mess houses are maintained it is advisable to place them in charge of a steward, who will be held accountable for the proper management of the mess houses under his supervision.

40. **Relation of duties to designation of employees.**—It is not expected that a separate employee will be required on every project for each of the positions named. As a rule, the duties of two or more of the positions may be assigned to one clerk. The duties and designations are specified in order to suggest some kind of an office organization, for without such organization it is hardly to be expected that the ordinary routine business of an office can be carried on expeditiously or that the best results can be obtained. The chief clerk and his subordinates should exert every effort to save the project manager and his technical subordinates from the performance of any clerical work. The accountant's duties are quite as much of a specialty as are the duties of the engineer, and if the engineer is compelled to do this class of work he must neglect his engineering duties. If the engineer is unhampered by office and clerical work he will be able to travel more and inspect the work

frequently and perhaps save on one trip as much as the salary of a clerk for an entire year. The clerical force should bear these matters in mind.

OTHER FIELD OFFICES.

41. **Supervisor of irrigation.**—The supervisor of irrigation maintains an office at Billings, Mont., and advises and counsels with water users as to the best practice of irrigating and cultivating irrigated lands, the development of markets, and all questions affecting the welfare of settlers and water users. He consults and cooperates with the experts of the Department of Agriculture that are assigned to the projects, and advises the executive officer of the Reclamation Service regarding all irregularities in the operating departments of the respective projects that may come to his notice through inspection or otherwise.

42. **Consulting engineers.**—The consulting engineers act individually in an advisory capacity on special engineering questions submitted to them or with boards of engineers appointed to make recommendations regarding engineering features of reclamation projects.

CIRCULARS ISSUED IN FIELD.

Except in an emergency, no circulars shall be issued in the field for general use until after they have been examined and approved by the chief of construction or the director. Drafts of such circulars should be submitted to the chief of construction for approval and for forwarding to the director when advisable.

CLIPPINGS.

1. **Uniform system of handling.**—In order to facilitate the handling and filing of newspaper clippings, especially when reference is made to these in letters, it is desirable to adopt a uniform system.

2. **Mounting clippings.**—Instead of sending marked copies of newspapers to the Washington office, it is preferable, if the item is short, to cut it from the paper and mount it. Use for this purpose sheets of uniform letter size, viz, 8 by 10½ inches, taking the least expensive paper at hand, such as the ordinary typewriting second sheets, or the unheaded block letter paper, furnished for field use. Mount all ordinary clippings, if long enough, in two vertical columns, putting the left column 1½ inches from the left margin of the sheet in order to leave space for binding if desired. If the item is long enough for only one column, paste it on the right side, leaving a space of about three-fourths of an inch from the edge.

3. **Marking for identification.**—Put the name of the paper and date in the lower right corner beneath the article. If a subject is given, write it on the upper margin of the sheet. If the clipping is too long to go on one side of a sheet, use another sheet.

4. **Folding and fastening.**—Lengthy clippings which will necessitate considerable time or labor in mounting in this way can usually be attached on the margin of a piece of paper of the size designated and then folded so that the resulting shape will be that of an ordinary letter sheet. Attach all such mounted clippings by pinning or fastening the sheets in the upper left corner to the letter of transmittal. Where desirable underscore words or phrases in the clipping in order to call particular attention to the points discussed in the letter.

5. **News items desired.**—It is desirable to call to the attention of the Washington office any item of news, such as meetings of the water users' associations, or other discussions which bear upon the work in hand, and where these can be mounted and attached to the letters of transmittal, they can be readily handled and filed with the letter without danger of loss or confusion.

CORRESPONDENCE.

[See also Filing, Postal Laws, and Telegrams.]

GENERAL REGULATIONS.

1. **Use of typewriters.**—All clerks should be able to use typewriting machines, that they may attend to routine correspondence connected with their work, instead of giving such letters to a stenographer.

2. **Care of typewriters.**—Operators must see that the machines are at all times in the best possible condition. The type should be cleaned daily. Black record ribbons should be used and they should be renewed as soon as the impression becomes faint. The operator will be held responsible for the care and cleanliness of the machine. The repair man should be called on only for the adjustment of mechanical defects.

3. **Margins.**—Not less than 2-inch space must be left at the top of each page and $1\frac{1}{2}$ inches at left-hand side and approximately 1 inch at the right and bottom.

4. **Numbering pages.**—The page number must be placed at the bottom of the page in the center.

INTERNAL CORRESPONDENCE.

5. **Definition.**—Internal correspondence is defined as that between employees of the service as distinguished from letters addressed to persons outside the service.

6. **Salutation, subject, and complimentary close.**—The usual formal introduction and closing of letters will be omitted. Each letter will begin with a statement of the official designation or title of the person by whom it is written, followed by a statement of the official designation or title of the person to whom the letter is addressed. This will be followed by a statement of the subject of the letter, as follows:

From: Director and chief engineer.

To: Chief of construction, Denver, Colo.

Subject: Public notice, Salt River project, Ariz.

The subject should be stated as briefly as possible, consistent with clearness, and should contain the name of the project affected. Land descriptions and other matters of detail should not be given in the subject, but should be stated in the body of the letter. Where the writer has no official designation, his title and name should be placed at the beginning of the letter, as follows:

From: Assistant Engineer John Doe.

To: Project manager, Huntley, Mont.

Subject: Crop report, 1915.

7. **Body of letter.**—Each letter should be confined to one subject. Whenever the matter adverted to in a letter has been the subject of previous correspondence, reference should be made by date to such prior correspondence. Whenever a contract or other matter which has been previously submitted for approval is transmitted for action of the Washington or Denver office, the prior submission and approval should be referred to. Paragraphs should be numbered, and if the letter is in reply to previous correspondence the first paragraph should consist only of reference to such correspondence by date.

8. **Signature.**—The writer will sign his name without title or official designation. Chief clerks and other employees on a project should not sign letters or circulars directed to employees on the project or to persons on other projects or to other officers. All communications should be prepared for the signature of the officer in charge. To facilitate the handling of correspondence in the Washington office, authority has been given to chiefs of the various divisions to sign over their own title letters of a purely routine nature relating to their divisions. In general, offices of the service corresponding with the Washington office, except in the case of correspondence between the chief counsel and district counsel, will direct all letters to "The Director, U. S. Reclamation Service, Washington, D. C." In the field much time and labor may be saved by using a rubber stamp instead of the project manager's autograph signature on purely routine and unimportant papers, the chief clerk initialing under the stamped name. All copies of papers retained for files should be accurate and complete, including copies of any signatures appearing on the original.

9. **Inclosures.**—Each letter accompanied by inclosures should bear indorsement in lower left-hand corner, the abbreviation "inc." being sufficient if only one inclosure, but if more than one the correct number should be stated. If inclosures are so numerous as to require it, a list should be made, describing each inclosure in such a way as to render identification certain.

In transmitting tracings, blue prints, or other papers under separate cover an indorsement should be made thereon, or on slips attached thereto, referring to the serial number and date of letter or report of which they form a part.

10. **Correspondence through Denver office.**—In general, all correspondence relating to the management and execution of the work in the field shall pass through the office of the chief of construction. Correspondence of this character to and from project officers shall be addressed "Chief of Construction, Reclamation Service, Denver, Colo.", and shall be forwarded to the Denver office in duplicate with duplicate copy of all inclosures. Exceptions to this general rule are as follows:

A. Project offices will render direct to Washington office with copies to Denver:

- (a) Project monthly balance sheet.
- (b) All financial statements except cost reports.
- (c) Withdrawals and restorations.
- (d) Amendments to farm unit plats.
- (e) Temporary elimination of seeped areas.
- (f) Homestead and other land entries.
- (g) Special subjects on which action is initiated by the director, and direct report is requested.
- (h) All routine correspondence on accounting matters.

B. Render direct to the Denver office with copy to Washington, and the senior engineer for the district:

- (a) Monthly narrative reports for both construction and operation and maintenance.

C. Render direct to the Washington office without reference to Denver:

- (a) Fiscal agents' accounts, including abstracts, reports, vouchers and correspondence.
- (b) Routine statements of fact such as construction contract estimates.

(c) Correspondence and reports regarding disability claims under act of September 7, 1916. Copy of approval of claim will be furnished Denver by the Washington office.

(d) Administrative examination of transportation accounts (including letters with reference to shipments by express).

(e) Correspondence concerning stationery and other supplies furnished by Washington office.

D. Render direct to Denver office, in duplicate, without reference to Washington:

(a) All routine cost reports, in duplicate, in accordance with standard classification. These will be checked in Denver and a copy forwarded to the Washington office.

(b) Any special cost reports called for by the chief of construction.

(c) Estimates and authority for work, in triplicate. These will be checked and passed on in Denver, and if approved, a copy forwarded immediately to Washington.

(d) All correspondence and reports not specifically provided for in preceding paragraphs.

11. Reports, transmission to Denver office.—The following requirements will govern the transmission of reports, correspondence, and other papers to the Denver office:

(a) Reports of boards of engineers on Indian projects should be furnished in quadruplicate and on all other projects in triplicate.

(b) Specifications forwarded for approval and that are to be printed should be furnished in triplicate and two copies should have the engineer's estimate filled in the schedules.

(c) Reports on proposals received should be in duplicate accompanied by abstract of proposals (with engineer's estimate in parallel columns) in triplicate and one copy of abstract of checks. The checks together with abstract of same in duplicate should be forwarded direct to the Washington office immediately after opening bids.

(d) Applications for extension of time on contracts and accompanying papers should be submitted in triplicate.

(e) In all cases autograph signature need be attached only to original copy of papers, signatures to be typewritten or stamped on other copies.

12. Policy, questions of.—The chief of construction will forward to the Washington office all letters which in his opinion require a determination of general policy or action by the Washington office or the department, with such recommendation as he deems proper.

13. Correspondence with district counsel.—The chief counsel shall correspond direct with the district counsel in regard to legal affairs, but shall communicate with the chief of construction through the director and regular channels.

14. Correspondence with fiscal inspectors.—Inspectors shall promptly report all irregularities to the comptroller, who will advise the director, and the latter shall rectify the matter through regular channels.

15. Acknowledgments.—Prompt acknowledgment should be made of the receipt of all important communications, reports, etc., including those intended for record purposes only and for filing, and those calling for reply which can not be made immediately. In these latter cases the acknowledgment should include an approximate estimate as to when full reply may be expected. When appropriate the printed form of card of acknowledgment may be used. This applies to external as well as internal correspondence. In forwarding to the Washington office deeds and other documents accompanied by a simple letter of transmission, an extra copy of the letter should be furnished in all cases where the sending office desires an acknowledgment of receipt. The extra copy will be stamped with date of receipt in the Washington office and returned. (See also Filing, par. 13.)

16. Approvals in the field.—All matters presented to a member of the Reclamation Commission in the field by project managers for approval should be submitted in writing, and if approved by him, copies of the document with notation of approval shall at once be forwarded to the Washington and Denver offices.

17. **Copies of letters referred to field for report.**—Upon receipt of letters containing matters requiring investigation in the field and concerning which it is important that the Washington or Denver office should retain a full record, copies will be made thereof and referred to the field for report and the original retained in the Washington office files.

18. **Copies to field for information.**—It is frequently advisable to send to the field offices, for their information, copies of letters drafted in the Washington office for action by the Secretary of the Interior. Where matters of unusual importance are under consideration, it is at times deemed expedient to transmit copies to the field as soon as they are submitted to the department, and without awaiting action thereon. Such copies will bear stamp:

NOT APPROVED.

This copy is for advance information only, and not to be acted on until approved.

Later, when letter is signed or approved, advice can be wired or written to the field, putting them in position to act intelligently and promptly.

The duty of determining the necessity for "special" handling devolves upon the writer (author) of the letter, who should in each such case attach to the copy a slip, requesting the mails and files section to forward to the field at once.

In the absence of request for "special" handling, the mails and files section will retain all copies until action is taken, and will then insert the date and signature of the Secretary before forwarding to the field.

19. **Confidential data.**—Letters, estimates, board reports, etc., of a more or less confidential nature should not be open to public inspection. Such papers should be stamped "**CONFIDENTIAL—NOT FOR PUBLIC INSPECTION.**" This will enable members of the Service to make their reports unhampered by consideration of their effect in case publicity should be given, or the subject matter thereof become generally known. It will likewise allow officers to discuss questions from all angles and to present views and estimates which may be preliminary in character or for investigation and discussion only.

Rubber stamps, reading "**CONFIDENTIAL—NOT FOR PUBLIC INSPECTION,**" have been prepared for all field offices for use in stamping all confidential papers. The stamp should be placed on the first page of the document in the lower left corner or where it will be readily seen and attract immediate attention.

20. **Citations.**—When referring to State laws they should be cited by reference to the session laws of the State, giving the year and the page and also date of the act. If the act cited has been incorporated in any code or general compilation of the laws of the State, the citation should also refer to such code or general compilation giving the section thereof. If the code or such compilation is not subdivided into sections, the page and subdivision thereof, if any, where the act is found, should be given. References to Federal statutes should give volume and page, as, 32 Stat., 388.

21. **Reports on petitions, etc.**—Petitions or letters addressed either to the department or the Washington office, when transmitted through the field offices, should be accompanied by a report and recommendation of the officer transmitting the same so as to avoid the delay occasioned by subsequently referring the petition or letter to the field for report. The original copy of the petition should be forwarded.

22. **Reports by indorsement.**—Brief letters of inquiry are frequently sent to officers in the field, the answers to which can be given in a few words. Wherever possible officers should indorse upon the original letter the appropriate reply in a few words and return the paper to the Washington office to keep down the volume of correspondence and typewriting, and avoid writing new letters which simply repeat the question and give the answer.

EXTERNAL CORRESPONDENCE.

23. **Address.**—The name and address should be double spaced when they occupy only two lines and single spaced when more than two lines are required. Special care should be taken to use the most fitting title of address, as "Mr.," "Prof.," "Hon.," etc.

24. **Salutation.**—This should usually be in the form of "My dear Mr. Smith," or the equivalent.

25. **Body of letter.**—Letters should not be written in a formal style but should display human interest in the correspondent. Special pains should be taken not to make the letters too long or too labored or to use latinized words, preference being given to short, simple words of English origin. Letters should not exceed one page in length, if possible, and should not enter into a lengthy history or touch on irrelevant matters.

26. **Correspondence to be submitted to Washington office.**—Correspondence of project managers and other officers of the service with Members of Congress or other departments should be transmitted through the chief of construction who will forward it through the Washington office if it meets his approval, as also should technical articles for publication involving operations of the Reclamation Service.

LETTERS FOR SECRETARY'S SIGNATURE.

27. "P. R. S." letters.—All communications stamped "P. R. S." or "Prepare reply for Secretary's signature," especially those from Senators and Representatives in Congress, will be answered within three days from date of reference, and should this be impracticable, an acknowledgment shall be prepared for signature in the office of the Secretary, stating that the reply is in course of preparation and will be forwarded at the earliest practicable date, stating the same approximately.

28. Letters to the President.—Letters to the President should use the salutation "My Dear Mr. President" and should conclude "Cordially, yours." The address should be at the end in the lower left corner and in the following form:

The PRESIDENT,
The White House.

When papers are to be forwarded to the President for his approval the indorsement shall be prepared in the following form:

THE WHITE HOUSE,
January ———, 1917.

Approved:

All reports called for by the President shall be submitted in duplicate.

29. Letters to Members of Congress.—Letters to Senators and Representatives should use the salutation "My Dear Senator," or "My Dear Mr. A. B.," respectively, and should conclude "Very truly, yours," or "Cordially, yours," as may be deemed best. Letters transmitting reports required by law or by resolution should be addressed "The President of the Senate: Sir," or "The Speaker of the House of Representatives: Sir," as the case may be, and conclude, "Respectfully." Reports on bills to the Senate and House Committees on Public Lands should be sent in triplicate.

30. Letters to heads of other departments.—Letters to heads of other departments should use the salutation "Dear Mr. Secretary," and should conclude, "Cordially, yours." The address should be at the end of the letter in the lower left-hand corner and in the following form:

The Honorable,
THE SECRETARY OF THE NAVY.

31. Letters to persons outside the department.—Letters to persons not connected with the department should be addressed "Dear Mr. A. B.," and conclude "Very truly, yours," or "Cordially, yours."

32. Abstract of contents.—A letter for signature by the Secretary or Assistant Secretary of more than two pages in length should have

attached a brief typewritten abstract of the contents. It should contain:

(a) A paragraph stating briefly the nature of the communication and to whom it is addressed.

(b) A single paragraph stating the salient point or points involved; in other words, a syllabus is desired in simple terms.

(c) A paragraph referring to anything which requires immediate action.

33. Official designation.—All mail will be submitted with the designation of the signing officer.

34. More than one signature.—All mail which requires more than one signature shall have attached thereto, either on a facing sheet or on a separate slip, a statement of the number of signatures required, specifying whether they are to be autographed or stamped.

35. Use of words "the department."—The words "the department" should not be used in mail prepared for the Secretary's signature, except in very formal cases or where used historically. The personal pronoun "I" should be used.

36. Initials.—Such letters will not contain the initials of the head or acting head of the service, but should be accompanied by a carbon copy containing such initials in a conspicuous place.

37. Recommendations.—When letters are prepared for presentation to the Secretary, in which a recommendation is included, this recommendation should be made concisely and briefly at the end of the letter, and the form prepared for approval should be worded, "Recommendation approved," so that the approval will not cover all of the argument included in the letter.

38. Inclosure slips.—Numbered inclosure slips shall be used to identify all inclosures accompanying letters to the Secretary. Such inclosures shall be securely fastened together and shall have a numbered inclosure tag on top, and at the close of the letter, on the lower left-hand side, the word "Inclosure" shall be written with the number corresponding to that on the tag. Papers which are to be returned to the originating office shall be securely fastened together and have a slip attached marked "Return to (name of bureau or office)" and numbered to correspond with the inclosure tag.

EMPLOYEES.

1. **General classification of positions.**—Under the provisions of the civil service act of January 16, 1883, all appointees or employees are divided into two classes, namely, classified and unclassified. The classified service includes all positions above the grade of laborer and is further divided into (1) educational positions filled by the Secretary or director upon appropriate authorization by the Civil Service Commission, (2) educational positions (comprising field clerks and minor field clerks) filled by the officers in charge upon appropriate authorization by the district secretaries of the Civil Service Commission, and (3) noneducational positions filled by the officers in charge in the field service from eligible registers established by local civil service boards or by temporary employment. Positions in the classified service are obtained through passing suitable entrance examinations held by the Civil Service Commission.

2. **Educational positions.**—(a) Filled by the Secretary or director: Educational positions filled by the Secretary or director include all those requiring by their nature educational tests given by the Civil Service Commission. They comprise technical and clerical positions, except those of field clerk, and include senior engineer, engineer, assistant engineer, junior engineer, draftsman, computer, physician, trained nurse, examiner, assistant examiner, law clerk, accountant, bookkeeper, clerk (including senior, junior, and under clerk), stenographer and typewriter. (b) Filled by officers in charge: Educational positions filled by officers in charge include those for which examinations are given by the Civil Service Commission and registers maintained by the district civil service offices. They comprise the minor clerical positions in the field service, the employees being known as field clerks and minor field clerks.

3. **Noneducational positions.**—Noneducational positions, formerly known as registered positions, include all those requiring by their nature only noneducational tests to show the fitness of the applicants for the positions, applicants being rated on experience and physical condition. They consist of such positions as superintendents of construction, irrigation, or grading; water masters, inspector, including inspectors of earthwork, masonry, concrete, etc.; foreman, including master laborers, master workmen, master carpenters, corral bosses, etc.; surveymen, including transitmen, levelmen, rodmen, chainmen, note keepers, etc.; recorders and receivers of material, including property or store clerks, timekeepers, tool keep-

ers, storekeepers, cost keepers, etc.; all employees performing special duties, such as cement testers, concrete finishers, caretakers, stewards, janitors, blacksmiths, cranemen, dredge engineers, firemen, locomotive engineers, machinists, stationary engineers, steam-shovel engineers, riggers, ditch or canal riders, line riders, dam and head-gate tenders, patrolmen, electrical assistants, linemen, powerhouse operators, brakemen, conductors, trackmen, powder men, etc. (Bakers and cooks are excepted from examination.)

4. **Unclassified positions.**—Unclassified positions are those not requiring by their nature mental or manual tests prior to employment indicating fitness therefor. They are of a temporary character and consist of such positions as apprentice, axeman, boatman, derrickman, drillman, driver, helper, hostler, teamster, waiter, etc. Form 7-808 is a memorandum of employment in unclassified positions. Laborers are not engaged through the Washington office, but are employed by the local engineers in charge of the work, who are held strictly responsible for the character of the men and the services rendered and for the observance of the rules and regulations governing such employment. All agreements of employment must be reduced to writing, stating in explicit terms all the essential conditions of payment. Oral modifications of terms of employment are prohibited. Contracts for labor or memoranda of employment of persons for periods of less than a month should clearly state that payment will be made only for the time actually employed. The omission of this may lead to misunderstanding with reference to payment for times when labor has not been actually performed.

5. **New employees, requests for.**—If a project manager requires the services of an additional employee for an educational position requiring the Secretary's or director's appointment, he should make requisition on the chief of construction for a person having the necessary qualifications. If the chief of construction finds no one available for assignment he should make requisition on the director for a suitable employee, if for a technical position, and on the proper district secretary of the Civil Service Commission, if for clerical or mechanical draftsman positions (in accordance with the method as hereinafter outlined), stating specifically the character of the work to be performed; the place and probable duration of the work; the proposed salary; the sex; educational requirements and qualifications desired; required experience, stating mechanical and technical features in detail; importance of securing employees from the State in which the project is located; and all other facts necessary to secure intelligent action on the request. If the requisition is for a technical employee and is approved by the director, he will immediately transmit to the Civil Service Commission a request for prompt certification of qualified eligibles.

6. Appointments.—All appointments in educational positions, not requiring approval by the Secretary, will be made by the director upon appropriate recommendations of the chief of construction. Appointment certificates will be issued to the employees in which will be fixed their compensation, which can not be indirectly increased by perquisites of any kind without specific authority. Appointment certificates can be altered or rescinded only by the Secretary or the director. They may be divided into classes as follows: Probational, absolute, excepted, temporary, promotional, and demotional, and those by reinstatement or transfer.

7. Probational appointments.—When a person is first appointed to other than a temporary position he is given a probational appointment for six months, at the end of which time it automatically becomes absolute if the employee's services have been satisfactory. The probational period begins with the date of effect of the appointment. If a probationer's services have been unsatisfactory his connection with the service is terminated at the expiration of the probational period by the issuance of a notice to that effect.

Paragraph (c) of section 1 of civil-service Rule VII, relative to probational appointments, was amended December 9, 1911, to read as follows:

The person selected for appointment shall be duly notified by the appointing officer, and upon accepting and reporting for duty shall receive from such officer a certificate of appointment. The first six months under this appointment shall be a probationary period; but the commission and the department concerned may by regulation fix the probationary period at one year for any specified positions. If and when, after full and fair trial during this period, the conduct or capacity of the probationer be not satisfactory to the appointing officer, the probationer shall be so notified in writing, with a full statement of reasons, and this notice shall terminate his service. His retention in the service beyond the probationary period confirms his absolute appointment.

All appointments in educational positions except emergency temporary appointments must receive the prior approval of the director.

8. Effective date of appointment.—The date of effect of an appointment is the date the appointee enters upon duty. The date of execution of the oath of office does not determine the date of effect of the related appointment. In the case of a probational or other appointment where the date of effect is not fixed in the appointment a definite date of effect must be established and reported to the director. This date should be the first day of actual service. When the date of effect of the related appointment is not fixed therein, this date and the signature of an official cognizant of the facts in the case should be indorsed on the oath. Beginning on the date of effect, the appointee should be carried on the pay roll under the exact designation and rate of pay named in the appointment. See par. 13.

9. Reinstatements.—Section 9 of the civil-service act provides that whenever there are already two or more members of a family in the public service in the grades covered by this act, no other member of such family shall be eligible to appointment to any of said grades. Field officers should state this information when requesting reinstatements.

10. Transfers to the service.—When a transfer to the service is desirable, the chief of construction, upon the request of a field office, will make recommendation with full explanation to the director, who will carry on further negotiations.

Section 7 of the deficiency act, approved August 26, 1912 (37 Stat., 626), provides that no person employed at a specific salary shall be thereafter transferred and paid from a lump sum appropriation a rate of compensation greater than such specific salary. On September 9, 1912, the comptroller held that this act prohibits not only a transfer at a greater compensation, but also the payment thereafter of any greater compensation than the specific salary formerly received. It was also held that if a person is receiving a salary from a lump sum appropriation, a transfer at a higher salary or promotion thereafter would be lawful. Subsequent decisions of the comptroller hold also that after transfer from a place subject to a specific salary there may be promotion in case the person fills a different place from that to which he was transferred (Nov. 9, 1912). Persons who apply for transfer to the service do so subject to the laws and rulings that may affect the possibility of their promotion.

11. Emergency employment.—In urgent cases when time does not permit an appointment through certification from the Civil Service Commission a vacancy in an educational position may be filled by the responsible engineer in charge by temporary employment of anyone possessing the necessary qualifications. Such temporary employment shall not continue for a greater length of time than may be necessary to secure certification and selection of a suitable person from the Civil Service register, and in no case shall such temporary employment extend beyond 30 days from receipt by the appointing officer of the commission's certificate without prior approval of the commission; provided, however, that in cases where a competent person will not accept immediate employment continuing for a short time, then the employment may be for such reasonable minimum time as will secure the necessary services. A special report of the employment should be immediately made to the director through the chief of construction. Field officers are authorized, after having reported a temporary employment and having requested certification of eligibles for the position, to continue the temporary employment, if necessary, until action is taken on the request or until special instructions are received.

12. Job employment.—In connection with a position of short duration—that is, when a person with particular qualifications is desired for some short job, after which his services will not be needed—the following general authority issued by the commission (rule VIII, sec. 4, civil-service act, rules, and Executive orders) is to be noted:

In all outside services or offices, for positions for which registers are not maintained by local boards but for which certification is issued direct from the commission, where a special work or job will be completed in 30 days or less, general authority to constitute the prior consent of the commission is given for temporary appointment, but such appointments must be reported by letter to the commission when made.

Before effecting appointments under this authority the registers of eligibles maintained by the commission, or its district secretaries, and the local boards of the service must be considered.

13. Oaths of office.—An oath of office is required by law in connection with each appointment and its execution shows formal acceptance of the appointment. A separate oath of office is required in connection with each new appointment, whether probational, promotional, reductive or temporary. No oath is required where a probational appointment is made absolute at the same rate of pay, or upon extension of a temporary appointment. Oaths of office should be executed promptly and in every case prior to the first payment of salary under the related appointment, and should be mailed to the director as soon as executed.

14. Transfers within the service.—All transfers from one project to another should be made by the chief of construction. Form 7-811 should be used and copy sent to the director promptly.

15. Organization sheets.—Prior to June 1 of each year officers in charge of field offices shall submit for approval by the Secretary an organization sheet on which shall be shown a minimum and maximum rate of pay for each grade of employee. The organization as approved shall not be changed without specific authority which will be given only when it is clearly demonstrated that the change is for the best interests of the service and may be satisfactorily explained to Congress. No amendments or changes in the organization sheets can be made retroactive. It is unnecessary and undesirable to encumber all of the positions for which authority is requested, and authorized vacancies are to be filled only as required. No appointments will be made at rates in excess of those given in the organization for the various grades.

16. Promotion, basis of.—Promotions are made on the basis of ability and efficiency shown in the work of an employee and upon evidence of his competence to carry on larger affairs. Every effort should be made to test the capacity of a man and to give him an opportunity for improvement. Recommendations for merited promotion may be made from time to time by the responsible officers in

charge as they become acquainted with the ability displayed by each man. In recommending promotion of employees the policy of the service, regarding smaller and more frequent increases in salary, should be followed whenever practicable. Recommendations made by any official for promotion of subordinates should be made to the next higher officer. Promotion during the probationary period is prohibited without prior approval by the Civil Service Commission.

17. Influence.—Recommendations for promotion from persons outside the service are expressly forbidden, as shown by section 3, of civil-service rule XI, as follows:

No recommendation for the promotion of a classified employee shall be considered by any officer concerned in making promotions, unless it be made by the person under whose supervision such employee has served; and such recommendation by any other person, if made with the knowledge and consent of the employee, shall be sufficient cause for debarring him from the promotion proposed, and a repetition of the offense shall be sufficient cause for removing him from the service.

18. Promotion, importunities for.—Importunities on the part of employees for promotion are strictly prohibited. All violations of the above order shall be reported. The supervising officers are thoroughly informed and competent to judge of the qualifications of those under their direction, and will endeavor to do justice in all cases. It is not to be understood that employees are forbidden to appeal to the director on the ground of unjust discrimination against them or to report unfair or improper treatment. Such an appeal, however, shall be in writing, shall state explicitly some substantial ground of complaint and may be forwarded direct to the director.

19. Promotions, when made.—Promotions of educational employees at salaries less than \$3,000 per annum can be made only after three months' service in any position from date of appointment or previous promotion, and promotion shall not exceed \$10 per month or its equivalent at one time or \$240 per year or its equivalent in any one year, without the specific approval of the Secretary. In positions carrying salaries at \$3,000 per annum or over, promotions can be made only after six months' service from date of appointment or previous promotion, and shall not be more than \$300 per year in any one year except by special authority of the Secretary. The rates paid to employees on annual or monthly bases shall conform to the salary schedule in the following paragraph.

20. Salary grades.—Officers making recommendations for appointments or promotions will, whenever practicable, conform to the following schedule:

	Per annum.	Per month.	Per diem.	
	\$900	\$75	\$2.50	
	960	80	2.67	
	1,020	85	2.83	Under clerk and under draftsman.
	1,080	90	3.00	
	1,140	95	3.17	
Junior engineer.....				
	1,200	100	3.33	
	1,260	105	3.50	
	1,320	110	3.67	Junior clerk and junior draftsman.
	1,380	115	3.83	
	1,440	120	4.00	
	1,500	125	4.17	
	1,560	130	4.33	
	1,620	135	4.50	Clerk and draftsman.
	1,680	140	4.67	
	1,740	145	4.83	
Assistant engineer...				
	1,800	150	5.00	
	1,920	160	5.33	
	2,040	170	5.67	
	2,160	180	6.00	
	2,280	190	6.33	
	2,400	200	6.67	Senior clerk and senior draftsman.
	2,520	210	7.00	
	2,640	220	7.33	
	2,760	230	7.67	
	2,880	240	8.00	
Engineer.....	3,000	250	8.33	
	3,300	275	9.17	
	3,600	300	10.00	
	3,900	325	10.83	
	4,200	350	11.67	

Assistant examiner grades are \$1,740 per annum and under and examiner grades are \$1,800 per annum and over.

21. **Reductions.**—Reductions are made in accordance with the necessary changes in occupation, where, through completion of important or onerous work, employees formerly engaged upon it are assigned to less exacting duties. They may also be made when the employee's work shows less merit, or as a matter of discipline, or in order to enforce observance of regulations. For example, where a disbursing agent has intrusted checks signed in blank to his assistant, and this is the first offense, he may, instead of being dismissed from the service be reduced in grade.

22. **Availability for transfer.**—When the work on which the employee whose furlough is contemplated is about to be completed or there is some reason other than that his services have been unsatisfactory, which would necessitate removal from his present assignment, the chief of construction should be so informed. He will in turn

notify the other officers in the field with a view to transfer to some other project or division. Such information should be sent to the chief of construction in ample time prior to separation either by furlough or resignation to permit of full consideration on the part of other engineers in connection with an assignment.

23. Separations from the service.—Separations from educational positions filled by the Secretary or director may be effected through resignation, transfer to another service or department, dismissal, or death.

24. Resignation, procedure in submitting.—Each resignation of educational employees should be in writing, addressed to the director and should be forwarded at least 30 days, whenever practicable, prior to the date of effect thereof through the project manager and chief of construction, with their recommendations, to the director for action. In transmitting a resignation the cause should be stated and a concise statement furnished of the work on which the employee has been engaged and of his qualifications for other assignment. The employee's future address and a brief statement of his proposed plans, if these are known, should be given. Resignations transmitted for acceptance should be prepared so as to indicate specifically the last day of service. It is preferred that the words "effective at the close of ———" be used. The acceptance of a resignation implies that the employee leaves the service in good standing, and a refusal to accept a resignation leaves him with a discredited official standing.

25. Requirements preliminary to the acceptance of a resignation.—For obvious reasons no resignation will be definitely acted upon and final payment of the salary of the person resigning will be withheld until a certificate has been made by the engineer in charge covering the following facts: (a) That all notebooks, maps, or official data have been or will be completed to the extent of the responsibility of the resigner; (b) that all fiscal matters, outstanding accounts, or indebtedness, for which the resigner is responsible, have been properly certified or satisfactory written explanations thereof made; and (c) that all public property in the custody of the resigner has been accounted for, and that the property returns and transfers have been signed and the property delivered after inspection to the new custodian. Fiscal agents and certifying officers will be held responsible if payments are made without complete evidence that these requirements have been complied with. In all cases of doubt the matter should be referred to the Washington office for final settlement. A fiscal agent's resignation should be tendered a sufficient time in advance for a successor to be appointed and bonded, and if possible he should not leave the project until his successor has qualified.

26. Resigning to enter service of contractor.—It is generally inadvisable and opposed to sound professional ethics for an engineer or

other responsible employee to enter the service of a contractor over whose work he has had supervision. In case of the resignation of such an employee for this purpose the relations between the contractor and the employee prior to the resignation will be carefully scrutinized before its acceptance. If the facts indicate the existence of questionable relations the resignation will not be accepted.

27. **Transfers from the Service.**—The provisions relating to resignations apply in general to transfers to other branches of the civil service. The rules governing such transfers are issued by the Civil Service Commission, and for information on these points the civil service rules may be consulted. In connection with transfers it is necessary to establish a date of effect or last day of service, and in case of the transfer of a field employee the last day of pay should be reported to the Washington office by the officer in charge. Upon receipt by the director of a request for transfer of a field employee the field office concerned is communicated with and action taken in accordance with recommendation from that office.

28. **Removals.**—Relating to this point, civil-service Rule XII reads as follows:

(a) Section 6 of the act of August 24, 1912 (37 Stat., 555), provides "That no person in the classified civil service of the United States shall be removed therefrom except for such cause as will promote the efficiency of said service and for reasons given in writing, and the person whose removal is sought shall have notice of the same and of any charges preferred against him, and be furnished with a copy thereof, and also be allowed a reasonable time for personally answering the same in writing; and affidavits in support thereof; but no examination of witnesses nor any trial or hearing shall be required except in the discretion of the officer making the removal; and copies of charges, notice of hearing, answer, reasons for removal, and of the order of removal shall be made a part of the records of the proper department or office, as shall also the reasons for reduction in rank or compensation; and copies of the same shall be furnished to the person affected upon request, and the Civil Service Commission also shall, upon request, be furnished copies of the same: * * *."

(b) In making removals or reductions, and in other punishment, like penalties shall be imposed for like offenses, and no discrimination shall be exercised for political or religious reasons.

(c) Pending action under section (a) of this rule, or for disciplinary reasons, a person may be suspended for a period not to exceed 90 days, but the reasons for such suspension shall at the time of the suspension be filed in the records of the proper department or office and copies shall be furnished the commission upon request. The period of suspension may be extended beyond 90 days with the prior consent of the commission.

Recommendations for removal should state the reasons therefor clearly and in detail. In cases where inefficiency or disqualification is the only cause, reasonable notice should be given to the employee. A removal requires a date of effect or last day on which the employee is in the service, and this date should be reported with the recommendation for removal.

29. **Death.**—The death of an educational employee should be reported to the Washington office, giving the date and cause of death and any other pertinent facts.

30. **Furloughs.**—When a reduction is required in the number of officials or employees whose duties are of a scientific, technical, or professional character, and it is believed that it may be advantageous to the service to recall such employees to duty at some future time, they may be furloughed without pay upon approval of the director, for the good of the service, and such furlough will render them eligible for reemployment in their respective positions under this department for a period equal to the life of their furlough, which in no case shall exceed three years, without further examination or appointment. Persons while on furlough shall not engage in work which conflicts with or is inimical to the interests of the Government. To do so will be sufficient cause for the prompt termination of the furlough and separation from the service.

31. **Railroad fares, paying of.**—The comptroller's decision of August 14, 1907, holds that under the provisions of the reclamation act the Secretary is authorized to incorporate into contracts of employment of laborers and mechanics as a part of the consideration for the services to be rendered thereunder a provision for the payment of the expenses of transportation of such employees from the places of their entering into contract to the place where their services are to be rendered. (Citing 1 Comp. Dec. 106; 4 id. 632; 5 id. 663).

When new appointees, other than laborers and mechanics, are engaged, memorandum of employment should be prepared, showing the position for which employed, rate of compensation, date of first payment for services and whether traveling expenses will be allowed or not. The following rules will, in general, govern in these matters:

(a) *Educational positions, new appointments.*—Railroad and Pullman fares will be allowed from point of employment to designated headquarters via the shortest route. Salary will begin upon beginning of said travel.

(b) *Educational positions, reinstatements.*—Railroad and Pullman fares will be allowed from point of employment to designated headquarters via the shortest route. Salary will begin upon beginning of said travel.

(c) *Educational positions, transfers from one project to another.*—Railroad and Pullman fares will be allowed and actual personal expenses not to exceed \$3.50 per day while en route from point of transfer to new assignment via the shortest route. Salary will be allowed while traveling and should be charged to the project to which employee is transferred.

(d) *Registered positions, new appointments.*—Railroad and Pullman fares will be allowed from point of employment to designated head-

quarters, but no other expenses. Salary will begin upon entrance on duty at designated headquarters.

(e) *Registered positions, reinstatements.*—Railroad and Pullman fares will be allowed via the shortest route. Salary will begin upon entrance on duty at designated headquarters.

(f) *Registered positions, transfers from one project to another.*—Railroad and Pullman fares will be allowed and actual personal expenses not to exceed \$3.50 per day while en route from point of transfer to new assignment via the shortest route. Salary will be allowed while traveling and should be charged to the project to which the employee is transferred.

Registered employees *must* be engaged locally whenever practicable.

(g) *Temporary positions (educational and registered).*—Railroad fare will be allowed one way, and return, if necessary. Salary will begin upon entrance on duty at designated headquarters and close with last date of service even though railroad fare is furnished for return trip.

Temporary employees *must* be engaged locally whenever practicable.

32. **Hours of work.**—Field officers in charge of projects or offices will determine the number of hours of work per day in the field and in project offices for classified employees, but not less than seven hours shall constitute a day's work. Longer hours will be expected for field duty, and whenever the exigencies of the work demand it indefinite time will be required of all regular employees except laborers and mechanics. Employees must be punctual in attendance and faithful in the performance of duty. For laborers and mechanics eight hours of labor constitutes a day's work by law. All employees of the service are required to give their best work and are not permitted to do outside professional work if inimical to the interests of the service.

EMPLOYMENT IN EDUCATIONAL POSITIONS FILLED BY ENGINEERS IN CHARGE (FIELD CLERKS).

33. **Field clerks.**—The position of field clerk is one of the educational class, but differs from other positions of that class in that employment and other changes in status may be made either by the director or by field officers, with due regard for existing regulations. Certifications of eligibles for probational employment, or authority for temporary employment, are obtained from the district secretary as in the case of all other first-grade clerical employment. Form 7-807, memorandum of employment, is used to fix their status upon entrance into the service, and when this form is used their employment and subsequent changes in status should be reported on Form 7-576d. Eligibles are certified from the forest and field-clerk

register and have a first-grade status for appointment by the director as this register is established from an examination composed of first-grade subjects.

34. Minor field clerks.—The position of minor field clerk is a second-grade position with a salary limit of \$900 per annum. Further examination is necessary for advancement beyond this rate. Employment and other changes in status are made by field officers and should be reported on form 7-576d. Form 7-807, memorandum of employment, is used to fix their status when entering the service. Eligible registers are maintained by the district secretaries and are made up from examinations of second-grade subjects, including optional subjects of stenography and typewriting. Certifications for employment are made (1) of eligibles having the highest ratings on the basis subjects; (2) of eligibles having the highest ratings on the basis subjects and one of the optional subjects combined, giving the basis a weight of 2 and the optional considered a weight of 1; (3) of eligibles having the highest rating on one of the optional subjects and who have also passed on the basis subjects; and (4) of eligibles having the highest total ratings on the basis and optional subjects combined. In making certification as above indicated, no optional in which the rating is less than 50 per cent will be considered. Minor field clerks may be transferred from one project to another, but not to another branch of the Government, or to Washington, D. C. Authority for employment in these positions should be obtained from the district secretary, as in the case of first-grade clerical employment.

EMPLOYMENT IN NONEDUCATIONAL POSITIONS.

35. Noneducational positions, applications for.—Applications for noneducational positions should be made to the chief of construction or to local boards of examiners and will be treated in the manner described in the following paragraphs.

36. Boards of examiners.—A board of examiners for facilitating examinations and appointments to noneducational positions shall be established at the principal office of each reclamation project, and shall be composed of a chairman, who shall be the district secretary, a secretary, a vice secretary, and one additional member, designated by the Civil Service Commission upon nomination by the district secretary. The civil-service act, rules, and executive orders will govern the local boards of examiners so far as they are applicable.

37. Duties of boards of examiners.—It shall be the duty of each board of examiners to furnish the Civil Service Commission through the Washington office information regarding the needs of the Reclamation Service for employees, the conditions of employment, and the qualifications desired of applicants; to supply application blanks

and circulars of information to applicants; to receive applications for noneducational positions; to hold examinations for noneducational positions; to grade applicants; to establish registers of eligibles; to certify lists of eligibles to officers in charge; to fill vacancies occurring in the membership of the board due to resignation, transfer, or other cause; and to do such other work as the Civil Service Commission may direct.

88. Vacancies in board membership.—Whenever a vacancy in the membership of a local board occurs through resignation or other cause it should be promptly filled by election by the remaining members. The secretary of the board should immediately notify the district secretary of the action taken, giving the dates of the separation of the former member and the election of the new member in order that the latter's formal designation may be made by the Civil Service Commission. Meanwhile the newly elected member may act with the board.

89. Rating examination papers, methods of.—An application for a noneducational position filed with a board of examiners shall be rated on the statements made and testimonials in the formal application concerning the physical condition and experience of the applicant, assigning a weight of 40 to physical condition and a weight of 60 to experience. In rating physical condition a rating of 100 per cent shall be given to an applicant having no apparent physical defects or disqualifications for the practice of the trade or occupation for which he is examined, and a deduction shall be made in the discretion of the examiner for physical defects or disqualifications according to their gravity. In rating experience 50 per cent shall be given for length of experience and 50 per cent for character of experience of the applicant, and the sum of the ratings on these two elements shall constitute the rating on experience. For positions requiring apprenticeship, a rating of 30 per cent shall be given to a workman who has acquired the status of journeyman; for each of the following four years a credit of 5 per cent shall be given. For positions that do not require apprenticeship, a credit of 20 per cent shall be given for one year's experience and an additional credit of 5 per cent for each of the succeeding six years. The item character of experience should be rated on the statements made by the applicant in his application as corroborated by his voucher and references. Consideration will be given to the quality and character of the experience shown as well as to the honesty, industry, sobriety, and intelligence of the applicant. Special consideration shall be given to experience that is continuous and recent. Where special experience is required for the performance of the duties of a position, and is not sufficiently indicated in the application, local boards shall require the applicant to file such additional written evidence as may

be necessary. The ratings, their products and the average percentage shall be entered in the proper blanks on the application form and each mark shall be initialed by the examiner or examiners responsible therefor. Applicants, before being declared eligible, shall be required to appear before a member of the board for personal examination, if in the opinion of the board this is deemed necessary.

40. Review of papers by Civil Service Commission.—All examination papers are subject to review by the Civil Service Commission at their option. It is necessary, therefore, that all facts on which the markings made by the local civil service board are based should be recorded. If the rating is affected by personal examination or oral evidence, the facts should be recorded, and, if the rating is affected by documentary evidence, the documents should be attached to the examination papers.

41. Responsibility of boards.—Each local board is responsible for the lists of eligibles prepared by it, and the members of the boards should investigate fully all applicants in order that no inefficient or improper applicants be made eligible for appointment. Certification and indorsements of unknown persons should not be accepted as complete evidence of capacity or worthiness. Applications may be received, personal examinations made, and ratings prepared by any member of the board, the applications being forwarded to the board at its headquarters for further consideration and final action. When application is received for a position for which no eligibles are needed, or likely to be needed, it should be returned to the applicant with statement to that effect.

42. Registers of eligibles.—Separate registers for the various positions shall be established, the names of the eligibles being entered on the registers in the descending order of the average ratings, except that the names of preference claimants under section 1754 of the Revised Statutes should head the registers. On the 10th day of each month, or as soon thereafter as practicable, the board shall prepare new registers of eligibles. New names shall not be entered on any of the registers on any other day except that an exhausted register shall be replenished when necessary. Each register shall contain the name of each person eligible for appointment in the district to which it relates on the date of its issue. The term of eligibility shall be one year, but at the end of every three months during the term of his eligibility each applicant shall be required to make written request that his name be still considered for employment and give his latest post-office address; otherwise his name will not be considered for employment. The names of persons whose terms have expired, as well as the names of those who have been appointed, should not appear on the register as eligibles. Five copies of each register shall be prepared on forms 7-575 and 7-575a, one

copy to be forwarded to the chief of construction and three copies to the district secretary, who will forward two copies to the director, one copy being for the Civil Service Commission. Each register shall contain the names of all the eligibles and shall show in each case the reason for the removal of any name during the month, whether by appointment, declination, lack of selection under three certifications, or expiration of period of eligibility.

43. Preference for appointment, section 1754, U. S. Rev. Stat.—This section gives preference to persons honorably discharged from the military or naval service by reason of disability resulting from wounds or sickness incurred in the line of duty, provided they are found to possess the business capacity necessary for the proper discharge of the duties of such offices. A person coming under the provisions of this law is released from age limitations, and is eligible at a general average of 65 per cent. When an applicant states that he was discharged from the military or naval service on account of disability incurred in line of duty, the local board should report to the Civil Service Commission the name, regiment, and company or vessel and dates of enlistment and discharge; and the Civil Service Commission will decide all such claims and inform the local board of its decision.

44. Eligibility for appointment in other districts.—An eligible on a register in one district may not have his name entered upon the same register of another district at the same time, but may have his eligibility transferred from one district to another or may be appointed from a register of one district for duty in another if there be a lack of suitable eligibles in the latter district.

45. Noneducational positions, appointments to.—Upon the occurrence of a vacancy in a noneducational position a selection from the register of the local board shall be made by the responsible officer in charge. In making selections from the register due regard should be given to the particular qualifications required to fill properly the vacant position, and one of the highest three eligibles possessing such qualifications shall be selected. An eligible whose name has been considered for three different vacancies for which other eligibles were employed in regular order may be dropped from the register. A noneducational employee who has been separated from the service without delinquency or misconduct, may upon application be restored to the list of eligibles for the remainder of his period of eligibility.

All appointments and promotions in noneducational positions, except emergency appointments not exceeding 15 days, at \$5 per day, or \$125 per month, or more, must receive the prior approval of the chief of construction. The same rules govern promotions in noneducational positions as in educational positions. Noneducational employees transferred from lower grade to higher grade positions may

at the time of such transfer be promoted to not to exceed the maximum rate of the new position. All recommendations for promotion should be submitted in duplicate to the chief of construction and each request confined to one employee only.

46. **Change in status.**—Any noneducational employee, after one year's satisfactory service, may become eligible for and be promoted to any educational position, provided he secures the requisite percentage in an appropriate examination therefor, held under the direction of the Civil Service Commission, and has shown the requisite ability. In this case the engineer in charge will submit a full statement of all material facts, together with his recommendation, to the chief of construction, for submission to the director. A noneducational employee serving in any capacity may be temporarily assigned to duty in any other noneducational position for which no additional special qualifications are required. In the case of a classified employee in any recognized mechanical trade assigned to duty in a different mechanical trade, continuation for a longer period than 30 days in such new position must be contingent upon registration by the local board in the new position. A noneducational employee may be transferred from one district or project to another upon agreement of the respective officers in charge and of the employee. At the end of the month the transfer should be reported on Form 7-576c by the engineer in charge of the work from which the employee is transferred and on Form 7-576a by the officer in charge of the work to which he is transferred, showing in each case the project to which or from which the employee is transferred.

47. **Temporary employment.**—Temporary employment without examination may be made to fill a vacancy in a noneducational position where there is no register of eligibles and may continue until a register of eligibles is established; but such temporary employment shall not continue longer than 30 days after a register of eligibles is established. Temporary employment should be avoided and should continue for as short a time as the conditions permit. The temporary employee should be instructed to present himself as soon as possible before the local board with a view to examination, registration, and becoming eligible for regular employment.

48. **Forms to be used.**—Forms 7-563, 7-569, 7-575, 7-575a, and 7-578 shall be used by the local boards. Each applicant should fill out Form 7-563. Form 7-569 should then be addressed to each of the persons whose names are given as reference and the replies when received should be attached to Form 7-563 as a part of the application. Each applicant should be notified of his rating on Form 7-578. Form 7-807, memorandum of employment in noneducational position, should be executed and forms the documentary appointment of a noneducational employee. Form 7-627 is a card for recording the

important data relating to examination and employment in non-educational positions.

49. Report of changes.—The engineer in charge shall forward to the Washington office, through the district secretary, with copy to the chief of construction, on the first of each month or as soon thereafter as practicable, reports of all the changes that have taken place in the personnel of noneducational employees during the preceding month. These reports shall be made on Forms 7-576, 7-576a, 7-576b, 7-576c, and 7-576d. In case no changes have occurred, Form 7-576 only should be furnished with indorsement at the bottom to that effect. It is necessary to make but one report showing initial employment and each change of status, and duplication of names from month to month should be avoided.

FIELD APPOINTMENTS THROUGH DISTRICT SECRETARIES.

50. Division of field by civil-service districts.—The commission has divided the United States into twelve civil service districts for convenience in holding examinations, and making certifications for filling vacancies occurring in certain field positions, such as stenography, typewriting, bookkeeping, and clerical positions. The civil-service districts which include reclamation States are as follows:

Eighth district.—Headquarters, post office, St. Paul, Minn.: Minnesota, North Dakota, South Dakota, Nebraska, and Iowa.

Ninth district.—Headquarters, old customhouse, St. Louis, Mo.: Kansas, Missouri, Arkansas, Oklahoma, and part of Illinois.

Tenth district.—Headquarters, customhouse, New Orleans, La.: Louisiana and Texas.

Eleventh district.—Headquarters, post office, Seattle, Wash.: Washington, Oregon, Idaho, Montana, and Wyoming.

Twelfth district.—Headquarters, post office, San Francisco, Cal.: California, Nevada, Arizona, New Mexico, Colorado, and Utah.

51. Filling of field vacancies in clerical positions.—When a vacancy occurs or is about to occur in a clerical or subclerical position, and it is desired to fill such position through examination, the nominating or appointing officer—project officer—will make request upon the district secretary for a certification of eligibles, which request should give the designation of the position, sex, salary, place of employment, and such other information as may be necessary to determine the qualifications required in the position to be filled. Upon receipt of the certification, accompanied by the papers of the eligibles certified, the nominating or appointing officer will make selection, nominate the person selected, and forward nomination to the district secretary for approval or disapproval. When the certification is returned to the nominating or appointing officer, if approved, he should transmit the same to the Washington office through the chief of construction

with recommendation. The examination papers submitted should be returned to the district secretary with the nomination, the certificate issued being retained for transmission to the Washington office with recommendation for appointment. Abstracts of all examination papers should be made and retained in the field offices. As a matter of economy in time, when nominations are made to the district secretary, if approved by him, the certification could be forwarded direct to the Washington office through the chief of construction for further action, the district secretary notifying the nominating officer of his action.

52. **Temporary appointment, requests for authority for.**—Requests for authority, and nominations and reports of temporary appointments made to the district secretary should indicate the exact nature of the temporary appointment; that is, whether it is to fill a position which is permanent in nature and which is to be filled permanently either by original appointment through certification from a register or by promotion, reinstatement, or transfer, or whether the appointment is for job work or for filling a vacancy caused by the temporary absence of the regular employee. The duration of the employment should be given, at least approximately. The nominations will also show all declinations, failures to accept, and other data affecting the availability of the eligibles furnished for temporary appointment.

53. **Temporary appointment, furnishing lists of eligibles for.**—District secretaries will prepare from the general registers lists of eligibles who are available for immediate temporary appointment and will furnish lists of such eligibles to local secretaries (of the Civil Service Commission) at cities where there is likely to be need for temporary employees and will advise all nominating or appointing officers at such places to whom requests should be made for eligibles, and will also furnish lists of such eligibles to nominating or appointing officers at places where there are no local secretaries. District secretaries will advise the local secretaries and nominating or appointing officers who have been furnished lists of all changes affecting the availability of the eligibles for immediate temporary appointment.

54. **Temporary appointment pending permanent appointment.**—When the public interest requires that a vacancy in a position shall be filled before probational appointment can be made as a result of certification, the nominating or appointing officer shall first make request for certification of eligibles for probational appointment, and then shall make selection in the same manner as for probational appointment; that is, observing such provisions of civil-service rule VII as relate to selection from each group of three names, from the list of eligibles furnished or to be obtained under paragraph 53. Where in any case a nominating or appointing officer finds that there is no eligible available, as provided in paragraph 53, or if the eligibles

furnished decline or fail to accept, he may make a temporary appointment outside the register for such period as may be necessary to select and appoint a person probationally to the position; but in no case, except as provided in paragraph 58 shall such temporary appointment (whether from a register or outside a register) extend beyond 30 days from the receipt by the nominating or appointing officer of a certification of eligibles for probational appointment. Temporary appointment pending the filling of a position by promotion, reinstatement, or transfer shall be made in like manner, and shall not, except as provided in paragraph 58, extend beyond 30 days from the receipt by the appointing officer of the commission's certificate for such promotion, reinstatement, or transfer, or beyond a period of 30 days from the date of entrance upon duty of the temporary appointee when the promotion or transfer does not require the commission's certificate. Nomination for temporary appointment under this paragraph should be promptly forwarded to the district secretary; should be made in the same manner as for probational appointment; and should refer to the request for certification for probational appointment, recommendation for promotion, reinstatement, or transfer, or to other action taken for filling the vacancy.

55. Temporary appointment pending establishment of register and certification of eligibles.—In accordance with the provisions of paragraph 54, temporary appointment to a position for which there are no eligibles may be made on condition that the person so appointed make application for the examination when announced, but shall continue only for such period as may be necessary to make probational appointment through certification, and in no case, except as provided in paragraph 58, beyond 30 days from the receipt by the nominating or appointing officer of the certification of eligibles.

56. Temporary appointment from register pending full certification.—When there is at least one eligible and not more than two eligibles on a register for a position in which a vacancy exists, the commission shall, upon requisition from the nominating or appointing officer, certify the name of the one eligible or the names of the two eligibles, which shall be considered with a view to probational appointment; and if the appointing officer shall elect not to make probational appointment from such certification of less than three names, then, if temporary appointment is required, it shall be made from such certificate, unless reasons satisfactory to the commission are given why such appointment should not be made. Such temporary appointment may continue until three eligibles are provided. If selection is not made from the certificate for either probational or temporary appointment under the provisions of this paragraph, then temporary appointment, if required, may be made in accordance with the provisions contained in paragraph 55.

57. **Temporary appointment for job employment.**—When there is work of a temporary character at the completion of which the services of an additional employee will not be required, a temporary appointment may be made, with the prior consent of the commission, or as provided herein, for a period not to extend beyond three months. Such temporary appointment shall be made through certification from an eligible register or by selection from a list of available eligibles provided under paragraph 53, appointment to be made in accordance with such provisions of civil-service rule VII, as relate to selection from each group of three names. But where in any case a nominating or appointing officer finds that there is no eligible available, or if the eligibles certified decline or fail to accept, he may make selection for temporary appointment outside of the register for a period not to extend beyond three months without the prior consent of the commission. The nomination for appointment under this paragraph must show all the circumstances, as required by paragraph 52, and should be forwarded immediately to the commission. In lieu of formal nomination for job employment not to extend beyond 30 days, when waived by departmental regulation, written report of such employment, which must show all the circumstances, should be promptly forwarded to the commission. No extension of temporary appointment under this section shall be made except as provided in paragraph 58.

58. **Extension of temporary appointment.**—The prior approval of the commission is required for extension of temporary appointment (a) pending the filling of a position through certification from a register, promotion, reinstatement, or transfer; (b) for job employment originally made under paragraph 57 for less than three months; (c) for job employment outside the register made for three months under paragraph 57 without the prior consent of the commission. General authority is given for the extension beyond three months for an additional period not to exceed three months of job appointments originally made for three months through certification from registers or made for three months in the absence of eligibles under the prior authority of the commission. All such extensions beyond three months shall be formally reported to the commission when made, with a statement as to the necessity therefor. The prior approval of the commission is required for extension of temporary job appointment under paragraph 68 beyond a period of six months. Such extension can only be authorized for the purpose of completing the job of work for which the person was originally employed. Nominating or appointing officers should be careful not to continue a temporary appointment for job work beyond six months without authority. Otherwise payment for service may be disallowed.

59. **Nepotism.**—Responsible officers are enjoined to see that in no case shall there be employed and serving under the direction of any person a relative as close as or closer by blood or marriage than that of first cousin, such as brothers-in-law, nephews, etc., except when names are selected by the regulation method from a register of eligibles in which the employer has had no influence in the selection.

60. **Court proceedings.**—Should proceedings be brought in any local inferior court against employees of the service engaged in field work, designed or calculated to annoy or interfere with them in the performance of their official duties, they should promptly lay the matter before the proper district counsel, who will take it up with the appropriate United States attorney or submit a formal statement of the case to the Washington office with a view to action by the Department of Justice, and no action should be taken by them until instructed as to the course to be pursued. In case an officer or assistant is summarily arrested and taken before a justice of the peace or other officer and ordered to pay a fine at once or accept imprisonment, the fine should be immediately paid, but an appeal should be taken. Meantime, the facts should be communicated by telegraph to the district counsel, who will take such steps as the case may warrant.

61. **Insurance.**—In order to avoid the burdens which occasionally fall on the various members of the service by reason of the necessity of relieving the financial distress of an associate who is ill or has suffered an accident which does not come within the contemplation of the Federal employees' compensation act or the scheme of hospital deductions, it is important that all employees should take out some form of health or accident insurance. A mutual insurance company has been formed consisting entirely of employees of the Government in the Reclamation Service, Forest Service, Geological Survey, and similar Government offices. This is known as the Government Employees' Mutual Relief Association and is for the purpose of giving employees reasonable indemnity in cases of illness or accident which prevents them from attending to their official duties. (See Government Employees' Mutual Relief Association.)

62. **Land ownership by employees.**—During the time of survey, examination, or preliminary study of a project it is not permissible for an employee of the Reclamation Service to become directly or indirectly interested in the lands or region under survey.

After a project has been determined upon and contracts let it is permissible for an employee of the service to purchase land for a home to be occupied by himself and his immediate family. This permission, however, does not extend to buying and selling as a dealer or speculator, but the intent must be merely to establish a home in good faith. (Regulations, June 24, 1905.)

Speculation in lands or loans or investments connected with the same, except as herein allowed, are strictly prohibited. Employees are in nearly all cases subject to transfer from one project or office to another as the interests of the service may require. Any interest which employees may secure in a project will not be permitted to interfere with a transfer required by the interests of the service. Any employee acquiring interest in land under a project does so entirely at his own risk, with the understanding that such interest shall not interfere with such transfers as may be found desirable. (Order of September, 1909.)

No superintendent of irrigation, engineer; or other officer or employee in responsible charge of a reclamation project or unit of project will be permitted to acquire any interest in property within that project. This prohibition does not extend to laborers or assistants whose duties are confined to carrying out instructions given by chiefs but only to such men as initiate and put into effect those matters which are left to judgment and discretion. Rights initiated under the order of September, 1909, and prior to the date of this present order will be recognized as being within the scope of the said original order. (Order of April 11, 1912.)

63. Purchases from employees.—The general rule is that purchases shall not be made nor property hired from employees of the service. Transactions of this kind are clearly unbusinesslike and of such a nature as to invite criticism. A departure from the rule will not be permitted except under the most unusual and most extraordinary circumstances, and in such cases full statements of the conditions that appear to warrant the transactions must be submitted, and whenever possible the permission of the director must be obtained in advance. A man may, however, be hired in connection with his horses, wagons, or other property, the whole being included in one agreement. The services of the person are accessory to the use of equipment, as when a driver accompanies a hired team.

64. Sale of Government property to employees.—In view of the possible criticism which may arise if a classified or registered employee of the service should purchase temporary buildings, equipment, supplies, etc., owing to the completion of a project, or condemnation of property of projects in course of construction, such purchase is hereby prohibited, except when the sale is made at a duly advertised public auction. This does not apply to sales to employees from authorized mercantile stores of property regularly carried in stock for sale.

65. Records of employees for use in case of mishaps.—It is desirable that a record should be kept at every office in this service giving in connection with each employee the name and address of the

nearest relative or person who should be communicated with in case of accident to or death or sickness of the employee and also a statement regarding the accident or health insurance carried by him. This record should as far as practicable cover all laborers employed, and should be complete as to the classified service, including every employee occupying a registered position. It is, therefore, ordered that such a record shall be prepared and kept on file in each office of the Reclamation Service to be corrected and brought up to date from time to time as changes occur. It is not necessary to send a copy of this record to the Washington office.

66. Families in camp.—When a permanent camp or station has been established for the construction, operation, and maintenance of works, it has been found to be of advantage to permit or encourage the families of the employees to live in the locality. In this case, however, it should be kept clearly in mind that the employees are not on a travel status, and must subsist themselves. Any subsistence obtained must be directly at the expense of the employees, or indirectly through deductions made on the pay roll for subsistence furnished. Wives and families of employees are not permitted to be entertained in temporary surveying or reconnaissance camps.

67. State and municipal offices, holding of.—Under Executive orders of January 17 and 28, 1873, persons holding any Federal civil office by appointment under the Constitution and the laws of the United States, are not permitted to accept or hold any office under any State or Territorial government, or any municipal corporation. The acceptance or continued holding of such State, Territorial, or municipal office, by a person holding such civil office under the United States is deemed a vacation of such Federal office and as a resignation therefrom. The offices of justices of the peace, notaries public, commissioners to take acknowledgments, etc., are excepted from the prohibition imposed. Positions on boards of education, school committees, public libraries, religious or eleemosynary institutions are not "offices" and do not come within the prohibition. Federal officers may become officers of the State Militia. Unpaid service in a local or municipal fire department is not an office and may be performed by Federal officers, provided their Federal duties are not interfered with. Mechanics or laborers employed by the day do not hold office within the meaning of the Executive order. (See par. 97.)

68. Personal services.—The acceptance of voluntary service, except in cases of emergency involving possible loss of life or the destruction of property, is prohibited by law, subject to dismissal from office, fine, and imprisonment. Voluntary service without compensation being unlawful, employment for the purpose of obtaining the necessary knowledge or skill to pass an examination is prohibited. (Sec. 3679, R. S., as amended by the act of Feb. 27,

1906, 34 Stat., 49.) In case of an agreement made with an individual whereby he is to render his personal services, and becomes what in law is known as a servant, or employee of the Government, advertisement is not required by section 3709, Revised Statutes, and a contract in the form provided by section 3744, Revised Statutes, need not be executed, but the terms of the employment should be determined in advance, and set out in the commission, appointment, or notice of employment. For further information in regard to employment in the Reclamation Service, see Form 7-634, "Regulations governing examination and appointment in the Reclamation Service," approved by the department and the Civil Service Commission on September 12, 1908. For memorandum of employment in non-educational positions, Form 7-807 is used; and for the memorandum of employment of laborers, Form 7-808 is used. Both of these forms make reference to the following regulations issued by the Secretary of the Interior July 6, 1910, for the information and guidance of the employees of the Reclamation Service:

From the pay of all employees on any of the works of the Reclamation Service the following deductions may be made under circumstances herein set forth:

Where meals are furnished by the United States, not exceeding 35 cents may be deducted for each meal so furnished.

For lodging furnished by the United States not exceeding 35 cents for each day's lodging furnished.

For orders on any store of the Reclamation Service or for goods received, the value of such orders of goods.

For hospital dues, not exceeding \$1.50 for each month or fraction thereof, in payment for such medical and hospital services as may be provided upon the project by contract or otherwise, provided that in case of prolonged sickness or injury such hospital service shall not be furnished in excess of one year, and provided further that if no deduction is made for medical and hospital services no liability to furnish the same shall attach to the United States. No hospital or medical service will be furnished by the United States for the treatment of chronic or venereal diseases.

For identification badge, if such badge is furnished, \$1 may be deducted, which will be refunded to the employee upon the conclusion of his employment and the return of the badge so furnished.

The amounts to be deducted for the several items shall be determined by the supervising engineer, and notice thereof and of any changes therein, shall be given by posting an announcement thereof in some conspicuous place.

When proper announcement is made under these regulations it is not necessary to secure memoranda of employment on Forms 7-807 and 7-808 in order to authorize deductions from pay rolls on account of the matters covered by the regulation. The announcement shall state the amounts to be deducted for the several items, with a special statement regarding the item of hospital dues if no deduction is to be made therefor. Record of the posting of such announcement must be made in the project files. Special care should be taken to post a new announcement whenever any change is to be made. The rates should be so regu-

lated as to return the cost of the service rendered. As a general basis the charge per month should equal about 1 per cent of the cost of constructing the building in the case of rental of houses, dormitories, etc. Local conditions may require an increase or a decrease in this amount, but this rate should be used as a general guide. (See Hospital fees.)

LEAVE OF ABSENCE.

69. *Leave of absence, authority for.*—The allowance of leaves of absence to employees in the Federal service has been covered by many acts of Congress. All of the former laws were repealed or amended by the act of March 15, 1898 (30 Stat. L., 316), which covers the matter generally; the act of July 7, 1898 (30 Stat. L., 653), and the act of February 24, 1899 (30 Stat. L., 890). For the text of these laws see page 525.

The rules and regulations governing leaves of absence in this service are based on departmental circular of February 1, 1910, copies of which may be obtained upon application to the director.

70. *New, temporary, and per diem employees.*—Regular employees who have been in the department less than a year, including those reinstated, except those appointed by transfer from other departments, will be entitled to annual and sick leave of absence at the rate of two and one-half days for each month of service. Persons transferred from another department or from one bureau or office to another within this department will be charged with the leave taken in current year prior to such transfer. Certificates from their former departments will be required. Employees transferred from this department to another will be given certificates showing their absence in the current year to date of transfer. Per diem employees shall not be granted leave with pay if their appointments state salary "when actually employed." If per diem rate is simply a measure of salary and they are regularly and continuously employed without limitation, they are entitled to leave the same as those with annual or monthly rates of salary. Temporary employees will not be allowed leave with pay for the first two months of service.

71. *Application form.*—Applications for leave of absence shall be made in the applicant's own handwriting upon a printed form (7-151—card size—for field employees and 1-034 for Washington office employees). All applications of field employees shall be promptly forwarded to the director through the chief of construction.

72. *Leave of absence, authority to grant.*—The director is authorized to grant to the clerks and other employees of the service the annual, sick, and military leave with pay and leave without pay permitted by law. It is not to be understood that leave of any

nature is a right which can be demanded, but is a privilege and will be granted only when in the opinion of the approving officer the public interests do not suffer by such absence. The chief of construction is authorized to grant annual leave to employees in the field, reporting same to the director.

73. **Leave revocable.**—Leave of absence may be revoked at any time and the employee ordered to return to duty before its expiration should the exigencies of the service require.

74. **A person leaving the Service will be allowed accrued leave only,** but the director may grant more than this (within the legal limit) when the separation occurs after the 1st of July and the person concerned has been in the executive civil service for three years or more, or when there are especially meritorious reasons why an exception should be made. A statement of the reasons for allowing more than accrued leave will be made a matter of record.

75. **Allowance of leave confined to current year.**—Leave is not cumulative. Employees who are prevented by the requirements of the service, or otherwise, from availing themselves of the regular annual leave will not be entitled to it, or any portion thereof, in a subsequent year; nor will leave be granted to be used in one year and charged to a subsequent year.

76. **Sundays and holidays, annual leave.**—Sundays and legal holidays by executive order, whether for the whole or part of a day, at the beginning or end of any kind of leave, or within a period of annual leave, will not be counted; but those which occur within a period of sick leave or leave without pay will be counted.

77. **Absence for promotion examinations.**—Absence of employees while actually engaged in taking promotion examinations, held by the Civil Service Commission, will not be charged.

78. **Annual leave, application in advance for.**—Application must be made in advance of the date of the beginning of the leave, on Form 7-151 for field service, and Form 1-034 for Washington office employees, and should be made for only the number of consecutive days desired. Leave charged to the annual leave account for a period longer than two full days shall, whenever possible, be applied for at least five full days before such period of leave is to begin to run.

79. **Noneducational employees, annual leave for.**—Project managers may grant to employees in noneducational positions, field clerks, and minor field clerks, within their discretion, and subject to the approval of the chief of construction, annual leave upon the basis of one day for each calendar month of employment, the leave to be subject to the same regulations as those now in force with reference to employees of the classified service under secretary's or director's appointment, in so far as such regulations may be applicable, except that the leave granted such noneducational employees will be

upon the basis of one day instead of two and a half days for each calendar month. Leave with pay to noneducational employees is not to be granted indiscriminately, but only in cases where faithful and efficient service or constant attention to duty warrants the absence of such employees with pay.

80. Physician's certificate.—Sick leave will not be allowed without a physician's certificate, unless application is accompanied by a sworn statement that the absence was due entirely to personal illness, that no physician was employed, that the employee was wholly unable to perform official work, or to be present at his post of duty, and that he was confined to his residence (giving same) during said period. A physician's certificate should show the name of the employee, that he personally attended him, the date or dates of attendance, the place of attendance (residence or office, street and number), the duration of the illness, and that the employee was actually physically disabled for the performance of official duties. Certificates of sickness will be acceptable only from regularly licensed physicians.

81. Investigation.—When deemed advisable an officer of the department will be directed to investigate and report the facts in any case of sickness or absence. Slight ailments or indisposition will not be accepted as sufficient cause for allowing sick leave; absence from such causes should be charged to annual leave.

82. Quarantine.—When an employee has been exposed to a contagious disease against which the medical authorities quarantine the patient, he should immediately file with the director a certificate from the attending physician, stating that in his judgment the presence of the employee in the office would jeopardize the health of fellow-employees. Application for leave with pay for the time lost must be accompanied by a certificate from the health office, showing that a case of contagion existed on the premises during the time covered by the application, and the attending physician must certify that all danger from contagion has passed. Quarantine leave is charged against sick, annual, and without pay leave accounts, in the order given.

83. Half day granted, not less than.—Sick leave will not be granted for less than half a day. Absence in excess of half a day will be charged actual time. Sick leave will not be granted in advance.

84. Professional treatment.—Absence for the purpose of being treated professionally by a dentist at his office is not allowable as sick leave. This is not intended to disallow sick leave for detention at home by illness or disability due to causes as to which a dentist is qualified to certify.

85. Sundays and holidays, sick leave.—Sundays, holidays, and half holidays, occurring within a period of absence on account of sickness

or quarantine, will be charged, but when occurring at the beginning or end of such leave will not be charged. When an employee is on sick leave which expires on (including) Saturday, and continues absent beginning Monday, following on annual leave, the intervening Sunday is not charged.

86. Penalties for deception.—All employees will be held to a strict accountability for statements made by them of inability to perform duty. When sick leave has been granted, and subsequent developments prove that it was obtained by misrepresentation, it will be charged to leave without pay even if the offender has annual leave still due. A second attempt to mislead or deceive official superiors, directly or indirectly, in regard to absence on account of alleged sickness, will be deemed sufficient cause for dismissal.

87. Modifying annual to sick leave.—No modification of annual to sick leave will be made unless sickness begins on or before the first day of the period granted as annual leave, when the latter may be surrendered and sick leave granted instead under the usual limitations. The circumstances and surroundings of an employee on vacation are usually so different from when on official duty that it seems beyond the intent of the law and regulations to grant sick leave during a period of annual leave.

88. Leave without pay, applications for.—Each application must be accompanied with a statement showing the cause for applying for leave without pay. Applications should, whenever possible, be filed in advance of the leave. Leave without pay is not to be considered as a right, but may be granted as a favor only when, in the opinion of the director, the public interests will not suffer by the absence.

89. Extended periods of leave not permitted.—Public service will not permit of an indefinite and indiscriminate extension of this privilege. Leave without pay for an extended period will not be granted, but the employee desiring such leave will be required to resign, subject to reinstatement, if in good standing.

90. Absence at beginning of year.—An employee who is absent at the end of the year without pay, and continues absent at the beginning of the next year, is not entitled to annual or sick leave on the new year's allowance until return to duty for an aggregate of 30 days; thereafter leave of absence with pay from January 1 is permissible.

91. Deduction for excess leave.—Absence of employees in excess of the legal allowance with pay must be covered by an application for leave of absence without pay for one day or more, as no excess can be permitted without a deduction therefor. In the case of a deduction of a day's pay where the employee has not been absent an entire day he may take the balance of the day's time without further deduction, subject to approval, provided the time is taken in the same year.

92. Deduction from annual and sick leave.—A proportionate deduction from allowance of both annual and sick leave shall be made at the rate of 1 day for each 12 days ($2\frac{1}{2}$ per month) of furlough or leave without pay in the current year. If absence without pay for 12 or more days should occur after annual leave is exhausted, application for leave without pay to modify the excess of annual leave already taken will be required. This applies also to reinstated employees in regard to the period of their separation from the department in the current year.

93. Sundays and holidays included.—Sundays and holidays and half holidays occurring within a period of leave without pay will be charged as whole days. Saturday half holidays during the summer months will be charged as whole days.

94. Sunday between sick leave and leave without pay. When sick leave expires on (including) Saturday and the employee continues absent, beginning Monday following on leave without pay, the intervening Sunday is charged without pay.

95. Penalty for absence without leave.—Employees absent without first obtaining leave, and not sick or quarantined, may be subject to the enforcement of leave without pay, and repetitions of the offense may be deemed good ground for dismissal.

96. Military leave.—Applications for military leave must be supported by the certificate of a competent officer of the National Guard.

97. State offices.—Engineers in the regular employ of the Reclamation Service can not take outside work unless by specific authority in each case from the director. In some cases of public or quasi-public works under States, municipalities, or large corporations, the public interest may be subserved by the director authorizing such employees to aid by professional advice at rates of remuneration common among consulting engineers but not at a less cost to the proposed employer and at rates specified in advance. The following is the text of an Executive order issued in 1873 relative to the acceptance of State and other offices by Federal employees:

BY THE PRESIDENT OF THE UNITED STATES.

EXECUTIVE ORDER.

Whereas it has been brought to the notice of the President of the United States that many persons holding civil office by appointment from him, or otherwise, under the Constitution and laws of the United States, while holding such Federal positions accept offices under the authority of the States and Territories in which they reside, or of municipal corporations, under the charters and ordinances of such corporations, thereby assuming the duties of the State, Territorial, or municipal office at the same time that they are charged with the duties of the civil office held under Federal authority;

And whereas it is believed that, with few exceptions, the holding of two such offices by the same person is incompatible with a due and faithful discharge of the duties of

either office; that it frequently gives rise to great inconvenience, and often results in detriment to the public service; and, moreover, is not in harmony with the genius of the Government;

In view of the premises, therefore, the President has deemed it proper thus and hereby to give public notice that, from and after the 4th day of March A. D. 1873 (except as herein specified), persons holding any Federal civil office by appointment under the Constitution and the laws of the United States will be expected, while holding such office, not to accept or hold any office under any State or Territorial government, or under the charter or ordinances of any municipal corporation; and further, that the acceptance or continued holding of any such State, Territorial, or municipal office, whether elective or by appointment, by any person holding civil office, as aforesaid, under the Government of the United States, other than judicial offices under the Constitution of the United States, will be deemed a vacation of the Federal office held by such person, and will be taken to be, and will be treated as, a resignation by such Federal officer of his commission or appointment in the service of the United States.

The offices of justices of the peace, of notaries public, and of commissioners to take the acknowledgment of deeds, of bail, or to administer oaths, shall not be deemed within the purview of this order and are excepted from its operation and may be held by Federal officers.

The appointment of deputy marshal of the United States may be conferred upon sheriffs or deputy sheriffs. And deputy postmasters, the emoluments of whose office do not exceed \$600 per annum, are also excepted from the operations of this order, and may accept and hold appointments under State, Territorial, or municipal authority, provided the same be found not to interfere with the discharge of their duties as postmasters. Heads of departments and other officers of the Government who have the appointment of subordinate officers are required to take notice of this order, and to see to the enforcement of its provisions and terms within the sphere of their respective departments or offices, and as relates to the several persons holding appointments under them, respectively.

By order of the President:

HAMILTON FISH,
Secretary of State.

WASHINGTON, January 17, 1873.

Inquiries having been received as to the application of said Executive order, a further order was issued on January 28, 1873. In reply to an inquiry whether the order prohibits a Federal officer from holding also the office of alderman or common councilman in a city, or of town councilman of a town or village, or of appointments under city, town, or village governments, it is held that offices of the description referred to, by whatever names they may be locally known, whether held by election or by appointment, and whether with or without salary or compensation, are of the class which the Executive order intends not to be held by Federal officers. It is held that positions and services on boards of education, school committees, professorships in colleges, etc., are not regarded as "offices" within the contemplation of the order, and officers of the Government may engage in such service provided it does not interfere with their official duties. The head of the department will be the sole judge whether or not the employment does thus interfere.

It was also held that the said order does not prohibit Federal officers from being officers of the militia in the States and Territories. Also that unpaid service in fire departments is not regarded as an office within the intent of the order, and may be performed by Federal officers, provided it does not interfere with their official duties, of which the head of the department will in each case be the judge. Employment by the day as mechanic or laborer in armories, arsenals, navy yards, etc., does not constitute an office of any kind, and those thus employed are not within the contemplation of the order. Master-workmen and others who hold appointments from the Government, or from any department whether for a fixed time or at the pleasure of the appointing power, are embraced within the operation of the order. See par. 67.

Any engineer or other employee accepting such employment by that action becomes separated from Government employment. Engineers will not be permitted to compete generally nor engage in private practice except as above stated.

98. **Favors or gifts not to be accepted by.**—Employees should not accept gifts, favors, perquisites, or other personal privileges from contractors, dealers, or others having business relations with the service.

FILING SYSTEM—WASHINGTON AND DENVER OFFICES.

GENERAL DESCRIPTION.

1. **Classification.**—The classification of correspondence is based on the reclamation act and acts amending or modifying such act and other laws, and rules and regulations of the Interior and Treasury Departments affecting the work of the service; also on the needs of each office as determined through experience gained in developing the classification. The classification has met the needs of the Washington office for about 12 years. It also follows the general rule of subject classification of correspondence, in that all correspondence about a project regarding a certain subject is filed in the same folder with such subdivisions as are necessary to segregate the correspondence that relates to a particular phase or unit of the subject. This subdividing keeps the contents of the folders small, allows different persons to consider various phases of the same subject at the same time, and consequently saves the time of the higher officers, etc. The statement "according to the needs of the office" could well be written after each subdivision of a main number.

2. **Subjects, divisions of.**—The correspondence about each project is separated by guide cards into eight divisions: First, general, containing folders regarding engineering matters, water appropriation, irrigation districts, water-right applications, and water users' associations; second, collections; third, contracts (formal); fourth, contracts (informal); fifth, lands, acquisition of; sixth, lands, classification of; seventh, lands, general; eighth, miscellaneous. The "general" division, which contains several subjects (classes), is filed first in the project drawers; the other divisions follow in alphabetical order, each division containing correspondence relating to only one class, as indicated by the guide card.

An example of the classification of correspondence about a project is as follows:

GENERAL DIVISION.

No. 1. **Engineering, general.** (All subdivisions of this number refer to engineering work.)

No. 1-A. **Operation and maintenance.** (Correspondence relative to rotation delivery of water, operation and maintenance work on the project, etc.)

No. 1-A1. **Operation of the project by settlers.** (Contract with irrigation district, regulations for such operations, etc.)

No. 1-B. **Construction of the ——— dam.** (Location, plans, or discussion relative to construction by Government forces or under contract. If by contract later correspondence should be filed under contracts. See number 7.)

No. 1-C. Construction of the —— unit. (Correspondence relative to the construction of a certain unit of the project.)

No. 1-D. Construction of the —— tunnel. (Note under 1-B applies here also.)

No. 1-E. Power development. (For irrigation of high land areas, etc., for sale of power, see number 6.)

No. 1-F. Drainage. (Correspondence relative to drains to reclaim seeped areas.)

No. 1-F1. Drainage of —— unit.

No. 2. Irrigation districts. (Correspondence relative to the formation of an irrigation district and correspondence with the district regarding the work on the project not covered by other project folders.)

No. 3. Water appropriations. (Notices of appropriation filed by engineers in accordance with State laws, etc. Copies of notices may be filed in separate folder of same number for quick reference.)

No. 3-A. Settlement of water rights. (Correspondence relative to water appropriations by others which interfere with the appropriation of the Reclamation Service; also the adjudication of water rights by the State courts.) Separate cases may be filed 3-A1, 3-A2, etc.

No. 3-B. Proof of completion of work, extensions of time, etc.

No. 4. Water-right applications. (Letters transmitting water-right applications, submitting questions relative to filing applications by settlers, recording the applications, etc. (Copies of the applications may be filed in separate folder of the same number and arranged alphabetically or numerically as is thought best.)

No. 5. Water users' association. (Correspondence with associations about the work on the project not covered by other project numbers.) Contract with association filed in separate folder of same number.

COLLECTIONS DIVISION.

No. 6. Collections, general. (Payments to the reclamation fund from various sources.)

No. 6-A. Lease or sale of lands, general.

No. 6-B. Lease or sale of power, general.

No. 6-C. Lease or sale of property, general. (Old equipment; would also include lease of buildings to employees.)

No. 6-D. Sale of timber, general.

No. 6-E. Lease or sale of water, general. (Water rentals.) Individual cases are filed 6 Smith or 6 Jones, as the case may be, and the folders containing the individual cases are arranged alphabetically and filed behind the last letter subdivision of 6. Where there is a volume of correspondence under one contract such contract may be filed in separate folder for quick reference.

CONTRACTS (FORMAL) DIVISION.

Correspondence relative to these contracts is filed in separate numbered folders, because in many cases several awards are made under each advertisement and because of the needs of the office. Example of a formal contract number is as follows:

No. 7. Contract——project. Correspondence relative to plans and specifications prepared by engineers in the field.

No. 7. Contract project. Correspondence relative to plans and specifications prepared by engineers in the field.

No. 7-A. Applications for copies of specifications.

No. 7-B. Correspondence relative to award of contracts by the secretary. (The first correspondence in this folder is the board report on the opening of the bids, followed by correspondence regarding the awards under this advertisement as a whole, and if only one award is made all correspondence is filed in this folder.)

No. 7-C. Schedule 1 awarded to ———. (All correspondence relative to this contract.) Executed contract and bond are filed in a separate folder of the same number for quick reference.

No. 7-D. Schedules 2 and 3 awarded to ———. Note under 7-C applies here also.

CONTRACTS (INFORMAL) DIVISION.

No. 8. Informal contracts, general. (Individual cases are filed 8 Smith or 8 Jones, as the case may be, such cases being arranged alphabetically and filed behind 8 general. Where necessary, separate folders may be used for different current contracts with the same party, distinguishing them by the advertisement or purchase order number.

LANDS, ACQUISITION OF, DIVISION.

No. 9. Acquisition of land. (Correspondence relative to the acquisition of land by purchase, donation, or condemnation proceedings for canals, reservoir sites, transmission lines, etc. Individual cases are filed 9 Smith or 9 Jones, as the case may be, such cases being arranged alphabetically and filed behind 9 general.)

LANDS, CLASSIFICATION OF, DIVISION.

No. 10. Land classification, general. (Soil survey to determine whether the land is worth reclaiming and can stand the charge necessary to cover the cost of irrigation.)

No. 10-A. Farm units (size of, amendments to plats, etc.). Subdivisions may be made for correspondence regarding plats or amendments to plats, on certain units of a project. Note relative to separate folders made in 10-B1 applies here also.

No. 10-B. Public notices. (Announcing lands open to irrigation construction charge, etc.). Notices are filed in "separate folder."

No. 10-B1. Payments under public notices. (Status of payments made by settlers.) Separate folders may be made for each letter in the alphabet under this number to hold correspondence covering individual cases which are alphabetically arranged within the folder.

No. 10-B2. Operations and maintenance payments. (General correspondence about operation and maintenance payments, status of same, etc.) The individual cases relating to operation and maintenance payments should be filed in the alphabetical folder under 10-B1. Operation and maintenance public notices are filed in separate folder of this number.

No. 10-B3. Entryman delinquent in payments. (General correspondence about delinquent payments; individual cases are filed in the alphabetical folders under 10-B1.

No. 10-B4. Postponement of payments on account of seepage. (Yearly report of changes in irrigable area on account of seepage.)

No. 10-B5. Postponement of payments on account of damage by hail. (Note under 10-B3 applies here also.)

No. 10-B6. Entryman accepting terms of reclamation extension act.

No. 10-B7. Supplemental construction. (Correspondence relative to settlers agreeing to increased payments on account of supplemental construction, and public notices announcing such increased charges.) "Notices" filed in separate folder.

No. 10-B8. Water users' accounts. (Changes in accounts referring to payments made by water users.)

No. 10-B9. Collection of operation and maintenance and construction charges by water users' association or irrigation district as fiscal agent under contract with Reclamation Service. (Contract and bond filed in separate folder of same number for quick reference.)

No. 10-C. Town sites. (Appraisal and sale of town lots; subdivisions of this number may be made for the different town sites under the project. Rental of water and lease of power to town sites filed under No. 6 with other collection contracts.)

LANDS, GENERAL, DIVISION.

No. 11. Lands, general. (General correspondence relative to lands within the projects, public or private, area, how much irrigable, and request that lands be included within the project, etc.)

No. 11-A. Withdrawals and restorations.

No. 11-B. Survey of lands. (To find correct description of land, surveys to be made in accordance with rules of General Land Office.)

No. 11-C. State lands. (Sale of lands by State, area of such land under the project, etc.)

No. 11-D. Railroad lands. (Sale of land by railroad company, price asked, etc.)

No. 11-E. Indian lands. (Allotments for Indians, etc.)

No. 11-F. School lands. (Amount of land under project, etc.)

No. 11-G. Taxation of unpatented homestead entries.

No. 11-H. Excess lands, sale of, price of same, etc.

MISCELLANEOUS DIVISION.

No. 12. Miscellaneous, general. (Correspondence which can not be classified under the other subjects of the project. Subdivisions of this number may be made as needed, examples being:

No. 12-1. Fish ladders and screens in dams and canals, stocking reservoir with fish, etc.

No. 12-2. Establishment of post offices and mail routes.

No. 12-3. Taking of timber, stone, etc., from lands withdrawn for forest reserves.

No. 12-A. Accidents on the project, reports of injuries to employees. Note: Reports of these injuries may be arranged in alphabetical order in this folder for quick reference, in each case the report of injury being filed on top and the later form reports being pasted to it; when final report is made of compensation paid, the case should be sent to the "transfer file."

No. 12-B. Claims for damages (caused by floods or breaking of canals, etc.) which may be paid by the Reclamation Service under the act of March 3, 1915; separate contracts for payment of such damages may be filed alphabetically behind 12-B.

No. 12-C. Petitions for construction of certain sections of the project.

No. 12-D. Grants, to private parties, of right to cross canals and transmission lines, etc., of Reclamation Service. (Revocable licenses; separate cases may be filed alphabetically behind 12-D.)

No. 12-E. Complaints by settlers. (Subdivisions of this number may be made for various complaints.)

3. Card index.—As each new subject is assigned, and folder made to contain the correspondence, cards are prepared in duplicate (one a carbon copy).

One card is filed alphabetically according to its subject, arranged behind an appropriate guide card.

The duplicate card is used for the maintenance of an index in which each card is arranged in numerical order. By means of this index, as each number represents a subject (folder), the clerk arranging the correspondence preparatory to placing in the respective file folders may, by consulting the index, verify or check up the file numbers which have been noted in blue pencil in the upper right hand corner of each letter.

To illustrate the use of the two cards, see paragraph 2, which describes the method of classification and subdivision. Two cards would be made for the general number and for each subdivision, one of each being filed under the "subject" and "numerical" indexes as outlined.

4. **Guides for card drawers.**—There are eight of these, each representing a broad subject or division, as follows:

General.	Lands, acquisition of.
Collections.	Lands, classification of.
Contracts (formal).	Lands, general.
Contracts (informal).	Miscellaneous.

A cross-reference guide card reading "Public Notices (payments under, etc.)" is filed after "Miscellaneous" with notation thereon, "See card under 'Lands, classification of.'"

Behind these guide cards placed in the subject index are filed, in alphabetical arrangement, the cards indexing the various subjects for which folders have been made.

5. **Guides for vertical file drawers.**—Large guide cards are used to separate the folders containing the different subjects or divisions of correspondence. These cards follow the same arrangement in the vertical file drawers as the smaller guide cards used in the index card drawers. The folders within each division are first arranged numerically, and if alphabetical subdivisions of a number have been provided, such folders are arranged in alphabetical order following the numbers they bear.

6. **Index guide and explanation of files.**—Cards for this index are made and filed under principal "key" words, notation being made thereon to denote under what division, and the file number of the folder, in which the correspondence so indexed is filed. To illustrate: If correspondence is desired in regard to "Payments under public notices," by reference to this index there will be found a card under "payments" and one under "Public notice," each of such cards stating that the correspondence regarding "payments under public notices" is filed in the "Lands, classification of" division, in folder numbered — B1. A second illustration: If correspondence is desired regarding "acquisition of lands" (by donation, condemnation, or purchase), by reference to this index there would be found cards under "donation," "condemnation," "purchase," "acquisition," or "lands, acquisition of," each stating that the correspondence is filed in the "Lands, acquisition of" division, in folder bearing the name of the person or company from whom the land is being acquired, and filed in alphabetical order behind the general number for that division or classification.

7. **Transferring correspondence.**—The nature of official correspondence prevents any plan for transfer at regular intervals from active

to inactive files. Correspondence regarding acquisitions of land and contracts (formal and informal) is transferred as soon as final payment thereunder has been made. General correspondence is held in the active files as long as there is frequent call for it. When transferred, each letter, and folder containing them, is stamped "Transfer case" and placed in the transfer files, where the arrangement in drawers is the same as formerly.

8. **General files.**—The foregoing classification treats of subjects classified under specific projects. There is in addition a volume of correspondence regarding organization, allotments, and problems relating to the service in general, which requires files apart from the project files, but these would require different treatment for the project offices.

SPECIAL INSTRUCTIONS.

9. **Folders of correspondence.**—It is at times necessary to place entire folders of correspondence on certain subjects in the hands of individuals. Employees are enjoined to exercise special care in handling such folders while in their custody, keeping the contents in the same order of arrangement as when turned over to them. The rule regarding use of "dummies" to take the place of any letters removed from such folders should be rigidly observed.

Do not place in such folder any letters or documents (new matter) which were not in it when the folder was turned over to you. They should all first pass through the hands of the file clerk, to be classified, assigned proper file numbers, etc., and indexed or cross referenced, if necessary.

10. **Replies or indorsements for filing.**—Letters which call for reply, or which apparently should be replied to, if sent to the files not accompanied by a written answer, or without appropriate indorsement, such as "File" or "File, no answer," followed by the initials of the person making such indorsement, should be returned by the file clerk to the person who considered the case, and his attention called to the omission.

11. **Dummies.**—No part of an established file should, under any circumstances, be removed from its folder or other receptacle, for consideration, without the preparation and insertion therein of a "dummy," describing briefly the letter or document removed, giving its date, also date of its removal from the file, and to whom referred.

12. **Cross references.**—File clerks should make generous use of cross references in connection with letters which refer to two or more classified subjects, each one of which has been assigned a file number. Such a letter may be filed in either of the folders, provided a suitable cross reference is made to each of the files.

13. **Promise cards.**—Correspondence which can not be promptly disposed of should not be withheld from the files indefinitely; neither

should it be sent to the files without making provision for calling it up for consideration at a later date. The "promise card" is adapted to such cases. It contains space for a brief description of the letter or case it is desired to call up, the initials of the person who will further consider the matter, and date on which to call it up. These cards are usually prepared by the persons interested, or by stenographers at their request, and accompany the letter or case when sent to the files. The file clerk should stamp (or write) the letters "P. C." and *date* (for calling up) in the lower left-hand corner of the letter or document, and maintain a file of promise cards, chronologically arranged. This file should be consulted at the beginning of each day's work, and all cards covering cases then due should be removed and, together with the file of papers, be sent to the person interested. If the file is gotten out in advance of the date set on the promise card, due to earlier receipt of information which can be used as the basis of further reply, or for any other reason, the promise card should also be withdrawn at that time and attached to the papers. The same cards may be used over and over, if it is desired to restore the correspondence or case to the files, by erasing the date first set and inserting an advance date.

FLAGS, DISPLAY AND CARE OF.

It is desired that the national colors be displayed in an appropriate manner at all field headquarters and offices and all important or permanent camps and upon all buildings occupied and used solely by the Reclamation Service for office and administrative purposes. Flags can be had upon requisition from the Washington office. There should be secured for the use of each of the camps and buildings falling within the above classification two United States flags, one large and one small, and an appropriately equipped staff or pole for the display of the colors; the smaller flag (or an old flag) to be displayed during windy weather and the larger one during fair and calmer weather. Flags shall be displayed only during regular working hours and on working days, except on the National Memorial Day, May 30, of each year, when the flag shall be displayed until noon at halfstaff, and afterwards at the top of the staff. The flag will be halfstaffed in the usual manner by raising to the top of the staff and lowering to a position about halfway between the center and top of staff. Upon other appropriate occasions the flag may be displayed at halfstaff under direction of the project manager or officer in charge. During extremely windy or stormy weather the flag will not be displayed. In cases where an old flag of the larger dimensions is on hand it may be substituted for use as a storm flag in place of the smaller flag before mentioned. The hour of raising and of lowering and housing the flag each day shall be designated by the officer in charge. Under no circumstances should the flag be allowed to remain indefinitely on the staff or pole, but it must be neatly folded and put in a suitable place each night. The officer in charge of each office or camp will designate one employee whose duties shall be to display the flag in accordance with these instructions and to care for properly and protect the flags furnished for use at such office or camp.

FORMS, USE OF.

Precautions should be taken to keep on hand a stock of such forms as may be needed, but it is not necessary to provide for exceptional cases. The use of any particular form or blank, if not convenient, should not be insisted upon, nor should important work be delayed in order to procure the exact form or blank.

Whenever it is necessary to prepare a contract or other paper for which a printed form has been issued care should be taken to use the latest edition. Printed forms should be used whenever practicable. If in exceptional cases they can not be used, the standard forms should be followed as nearly as possible in language and in the order of paragraphs. Much more time is required to examine a long typewritten document and compare originals and duplicates than printed forms, and there is always possibility of material omissions where the printed forms are not used. Employees in charge of blanks should take special pains to prevent the issuance of old forms. Whenever new forms have been supplied the old forms should be used immediately for scratch pads, if suitable for that purpose; and if not, should be promptly destroyed.

For complete list of forms, see Accounting Manual.

FUNDS, PRIVATE, ADVANCE OF.

Personal funds should not be used to pay Government obligations except in emergencies or where payment is demanded by the merchant before delivery of supplies will be made. Persons in a travel status may use private funds to cover personal expenses incident to the travel status and secure reimbursement upon proper vouchers when covered by travel orders.

GOVERNMENT EMPLOYEES MUTUAL RELIEF ASSOCIATION.

1. **Purpose.**—The Government Employees Mutual Relief Association is a cooperative association composed of male employees of the Reclamation Service and other similar Federal services to provide along practical and conservative lines for indemnity for loss of salary, and for medical and burial expenses in cases of illness, accident, or death. Employees, especially those outside of the Washington office, should inform themselves fully as to the purposes of the association, with a view of becoming members. In the past when death or sickness has occurred it has been frequently necessary for friends in the service but little able to bear them, to contribute toward the necessary expenses. The chief purpose of the association is to eliminate entirely the need for contributions of this kind. It is a duty, therefore, of every man in the service, whose sickness or death may entail this burden upon his fellows, to provide against it by becoming a member of the relief association. The employee who will not provide for the future in this or some other way has no moral claim on members of the service when sickness or necessity for financial aid occurs.

2. **Federal law.**—The Government employees' compensation act, approved September 7, 1916 (39 Stat., 742), see p. 511, provides protection to the employee in case of "personal injury sustained while in the performance of his duty, but no compensation shall be paid if the injury or death is caused by willful misconduct of the employee or by the employee's intention to bring about the injury or death of himself or of another or if intoxication of the injured employee is the proximate cause of the injury or death." This act does not cover a large proportion of accidents suffered by Government employees outside of their official duty, nor does it in any way cover cases of illness. The Federal law covers therefore but a fraction of the protection which the employees need.

3. **Supplemental relief.**—The relief association will supplement the Federal law in cases where accident occurs while not on official duty and in all cases of illness. The constitution of the association has been amended recently to make allowances in case of accident while on official duty where partial indemnity is allowed by the Federal law, as in the first three days of disability for which no payment will be made by the United States: also in other cases where the association will pay the difference between the allowance made by

the United States and that which can be made by the association, when the latter is larger. For those who have small salaries and are entitled to indemnity for loss of pay, the association will allow full salary when the employee's regular compensation is between \$50 and \$60 per month. In such cases the United States would only pay two-thirds of the monthly salary.

4. **Dues and benefits.**—The dues are \$12 per year, payable semiannually in advance, with special provisions for payment monthly by those who are not employed on annual salary. The benefits are as follows: \$2 per day for loss of time, while not drawing salary. The limit of this benefit is \$150 in any period of 12 months. The sick benefits are doctors' fees not exceeding the rate of \$28 per week. For surgical operations, when necessary, in addition, according to a scale such as is followed by accident insurance companies; medicine, \$5 a week; hire of nurses, \$25 a week; hospital expenses, \$15 per week; special expenses due to the disablement, \$50, the total under this provision not to exceed \$300 in any 12 months. In case of death, \$200 will be paid to the beneficiary, and when death occurs away from the locality designated as place of burial an additional sum equal to the actual and necessary expense of transporting the body to the designated place of burial, not to exceed \$100.

5. **Dividends.**—The constitution of the association provides for a credit dividend applicable to the dues for the last half of the year, equal to the proportional part of the surplus funds on hand in excess of a moderate reserve. This reduces the dues in proportion to actual cost of the insurance, after providing for the reserve. Anyone who has received indemnity in any year can not participate in the dividend for the next year.

6. **Exemption from corporate requirements.**—A proviso in the act approved August 15, 1911 (37 Stat., 16), relative to health, accident, and life insurance companies in the District of Columbia, exempts from its requirements associations composed solely of employees of the United States.

HOSPITAL FEES.

1. **Cooperative arrangement.**—The hospital and medical arrangement provided by the Reclamation Service is cooperative in nature and permits the treatment of sickness, etc., of employees for which no relief is provided by the compensation act of September 7, 1916. (See p. 511.) The service's hospital arrangement will be continued for the benefit of cases not within the scope of the act, but for cases within the said act and to the extent such cases may be benefited by the act, service should not be duplicated under the present hospital arrangement, if duplication can be reasonably avoided. The following regulations apply only to the operation of the cooperative arrangement, and not to the compensation act of September 7, 1916. (See Injuries, Compensation for, p. 76).

2. **Deductions from pay.**—Provision for caring for injured and sick employees shall be made by deducting a hospital fee, not exceeding \$1.50 per month, or fraction thereof per employee, from the salaries of all field employees, except possibly those holding educational and noneducational positions, and except those having homes in the vicinity of the work; specific request in writing shall be made by those desiring to be excepted. This requirement shall not be optional with the employee nor discretionary with the project manager, but shall be contained in the employee's contract of employment, knowledge of which shall be brought to the attention of all employees entering the service or remaining in the service by notices posted in accordance with the regulations approved by the Secretary of the Interior. The provision of a hospital fund is a benefit to the employee in addition to his right to compensation under the act of September 7, 1916, and would be an additional expense charged against the project unless provided by the employees themselves by this monthly assessment.

3. **Amount deducted.**—For this purpose there shall be deducted a sum not less than \$1 nor more than \$1.50 per month, as follows, namely, a minimum deduction of 25 cents, and after five days 5 cents per calendar day up to the monthly rate. If at any time during the month an employee receives medical, surgical, or hospital service from the United States, deduction shall be made at the prevailing rate for one full month.

4. **Examples cited.**—(a) Employment from 7th to 13th, with the exception of the 11th—Sunday. Deduction should be made for 7 days.

(b) Employment from 2d to 15th, excepting 4th and 6th to 11th, inclusive. If employee was absent under authorized leave and was still in an employment status on the 4th and from the 6th to 11th, deduction should be made for 14 days. If such employee was released on the 5th and reemployed on the 12th, deduction should not be made for the period from the 6th to 11th.

(c) Employee works from 8th to 15th, except 10th and 11th. If employee was absent under authorized leave and was still in an employment status on the 10th and 11th, deduction should be made for the full period, 8 days.

(d) Employee worked from 1st to 15th with exception of 4th, 5th, 6th, and 11th. The ruling on this case would be under the same principle as noted in (c).

(e) Employee worked on the 1st, 2d, 10th, 15th, and 16th. The nature of this employment would seem to indicate that this employee was not in an employment status during the period from the 3d to 9th and from the 11th to 14th. Under these conditions hospital deduction would not be made for these dates and the total hospital deduction for this case would be 25 cents. If, however, this employee was absent on sick leave or other authorized leave during the dates on which no service was performed and could be considered as in an employment status during this time, deduction should be made for the full period from the 1st to the 16th, or 16 days, which at 5 cents per day would amount to 80 cents.

5. **Reemployment during month.**—In case of reemployment during any calendar month, only one deduction of 25 cents should be made for the first five days during which the employee was in an employment status, even though such employment may not have been continuous, after which the deduction of 5 cents per day should be made up to the full monthly rate.

6. **Contract physician.**—The above scheme of deductions shall not apply on projects where a contract physician is employed at a specified rate inconsistent with the above rates, in which case deduction shall be made in accordance with existing contracts.

7. **Prolonged sickness or injury.**—In case of prolonged sickness or injury, such medical, surgical, and hospital services under this cooperative arrangement shall not be furnished in excess of one year.

8. **Employee must remain under observation.**—When a sick or injured employee has left the service or the vicinity so that he can be no longer under observation by the officials of the service, any benefits to which he may otherwise be entitled under these regulations shall cease, but so long as he remains under supervision of the local physician employed by the United States, within the limit of one year after the accident or the commencement of his illness, such medical, surgical, and hospital services as he may be entitled to under these

regulations and not covered by the act of September 7, 1916, may be furnished and paid for from the hospital fund.

9. **Obedience of physicians' orders.**—Employees should obey the orders of the physicians regarding treatment, and if disobedience of such orders results in an increased cost of treatment the excess cost will not be paid by the United States.

10. **Trivial ailments.**—No encouragement should be given to employees to call a physician to treat trivial ailments simply because they have paid a hospital fee. In case of trivial ailments, which would ordinarily receive home treatment by an employee, orders may be given on local drug stores for simple remedies without first securing a prescription therefor from a physician. The cost of each order shall not exceed \$1. Project managers are cautioned, however, that this matter should be carefully safeguarded to prevent harm or abuse.

11. **Contagious diseases.**—In case of smallpox, diphtheria, and other highly contagious diseases, pest houses or tents should be maintained and special nurses employed. The project officials should cooperate with the local authorities in all such cases.

12. **Chronic or venereal diseases and alcoholism.**—When hospital deductions have been made covering the time of injury or commencement of illness, medical, surgical, or hospital services will be furnished by the United States in cases of sickness except chronic or venereal diseases or those resulting from alcoholism, and such services will also be furnished for the treatment of injuries whether received on the work or not, except such as are the result of neglect, misconduct, or alcoholism.

13. **Medical, surgical, and hospital service, how furnished.**—Employees from whose salaries monthly deductions are made will be furnished medical, surgical, and hospital attention by Reclamation Service physicians, contract physicians or local physicians who qualify under the following paragraph. Those treated by local physicians may be treated at the physician's office or at their own home, and have a limited choice of physicians. Prescriptions ordered by the local physicians will be honored and paid for by the service. Physicians should state on prescriptions that they should be charged to the U. S Reclamation Service. In case of severe illness, where hospital accommodations are not furnished by the service or under contract, the employee will be sent to the nearest local hospital, or if his home is in the vicinity of his work, and the expense is no greater than if he were sent to a hospital, a nurse may be furnished at his own home or boarding house, the expense of such service being borne by the Government.

14. **Physicians' rates.**—Project managers will secure written understandings (to be filed in the project office) with all local physicians who are willing to do so for a flat rate for office calls, writing pre-

scriptions, a day and night rate per mile for visiting employees living at a distance from the physician's office, and a flat rate for examining laborers before their employment. A similar statement will also be secured from the nearest local hospitals for flat rates. A table showing these rates should be furnished the Washington office. Other things being equal, the service should, as in the purchase of any other service or commodity, take advantage of the lowest rates offered by reputable physicians. In other words, in localities where there is a fixed scale of charges by all reputable physicians, the employees from whose pay \$1 has been deducted should be given free choice of physicians. In localities where the charges of certain physicians are much higher than those of others whose services would be entirely satisfactory, the choice will be limited to the latter.

15. Physicians, employment of.—Physicians should not be employed by contract, unless absolutely necessary by reason of the fact that the Civil Service Commission is unable to furnish eligibles, or unless circumstances would not warrant the employment of a civil-service physician or an understanding with local physicians (par. 14) by reason of a brief period of activity, the scattered nature of the work, or other satisfactory reason. The exceptional conditions calling for the execution of a contract for medical, surgical, or hospital services should be fully reported to the Washington office and specific authority must be obtained before making such contract.

16. Scope of services.—Services herein described are intended to cover all cases of sickness except chronic or venereal diseases or those resulting from alcoholism, and all injuries, whether received on the work or not, except such as are the result of neglect, misconduct, or alcoholism, and except such as come within the scope of the act of September 7, 1916.

17. Form of request for services.—On projects where the services of local physicians are utilized, request for the services of such physicians should be made on Form 7-299. These forms, when properly filled in, should be transmitted to the Washington office at the end of each month. Each form should bear a reference to special fiscal agents' voucher number whereon payment for the services rendered by the physician is shown. No reference, however, should be made to this form on the voucher.

18. Employees excepted from hospital deductions.—In case an employee holding an educational or registered position or one having a home in the vicinity of the work does not wish to contribute to the hospital fund and receive the benefits thereof, the following waiver should be signed by him:

I, ———, do not desire to avail myself of the privilege of medical, surgical, and hospital benefit under the plan of hospital deductions, as I prefer to arrange for such services on my own responsibility, with the distinct understanding that no liability to furnish such services shall attach to the United States.

19. **Cancellation of waiver.**—Any employee who has been released from the payment of hospital dues and who desires a cancellation of the release shall certify on honor that he is, to the best of his knowledge and belief, in good health, and that he has no reason to believe that he may have to submit to an operation for any cause, and he shall present a physician's certificate as to his physical condition.

20. **Waivers of hospital benefits.**—Men who may be suffering some slight physical disability, as for instance hernia, should not be employed with a requirement that they sign waivers to hospital benefit or the right to claim compensation on account of said defect. It is practically impossible to refuse a man the benefit of hospital service on account of a disease for which he has signed a waiver if deductions have been made from his salary for hospital services, not only because of the ill effect upon the other men, but also on the ground of humanity, as a man who may be sick can not be shipped out of camp to take care of himself with perhaps no resources of any kind to depend on.

21. **Furnishing meals without charge in case of sickness or accident.**—On those projects which maintain a hospital and employ a civil-service or contract physician, in case of accident incapacitating an employee for work, whether he is confined to a hospital or not, provided he boards at a Government mess, and presents a certificate from the physician evidencing such incapacity, meals will be furnished without charge during that period of incapacity for which the compensation law provides no relief. If incapacity results in an approved claim for compensation, the full deduction for meals will be made, beginning with the day of the injury. If incapacity does not result in an approved claim for compensation, meals will be furnished without charge for the first 15 days and during the period subsequent to that time that the patient is actually confined to a hospital, after which full deduction will be made.

In case of sickness, if an employee is confined to a hospital, meals will be furnished without charge from the time of admission to the hospital until discharge therefrom. If the employee is not confined to a hospital, the regular charge for meals will be made for the first three days. If sickness continues for a period longer than three days, no charge for meals will be made for the fourth and subsequent days until the patient is able to return to work.

Meals will not be furnished without charge to employees who are incapacitated for work on account of chronic or venereal disease, or by reason of injuries which are the result of alcoholism, negligence, or misconduct. The full value of free meals furnished patients in hospitals should be credited to the mess-house earnings and charged to the cost of operating hospitals.

22. **Artificial limbs and eyes.**—Employees who are so injured while in the employment of the service as to lose one or more limbs or an

eye and who were paying hospital fees at the time of the injury resulting in the loss, may, if they so desire, be supplied with an artificial limb or limbs at a cost not to exceed \$200 per limb, or with an artificial eye at a cost not to exceed \$10, such cost to be paid from the hospital fund, and to be inclusive of transportation and other necessary expenses incidental to securing a proper fit, provided the injury was not due to negligence, intoxication, or other misconduct. The Government will not renew the limb or limbs after they are worn out.

23. Antityphoid inoculation.—All employees who have not already done so are urged to take the antityphoid treatment, which confers practically complete immunity for about three years. The cost of inoculating those employees paying a hospital fee, will be paid from the hospital fund in case the services of local physicians are utilized. No charge for this service will be made by civil-service or contract physicians. Antityphoid vaccine will be furnished for the treatment of members of employees' families living with such employees at or in the vicinity of the work, at a cost of 12½ cents for each complete treatment, consisting of three doses, and the cost of inoculation will be borne by the service and charged to the hospital account.

24. Burial expenses.—If a deceased employee has no known relatives, or if such relatives refuse to take charge of the remains and pay burial expenses, the county officials should be requested to pay the expenses of burial. If the county officials refuse, the remains will be interred in the locality by the Government as a sanitary precaution, and the necessary expenses of such interment will be borne by the Government, but will be charged against any moneys due the employee from the service. If deductions have been made from the pay of the employee for medical, surgical, and hospital services, such expenses will be charged to the hospital fund; otherwise the cost will be charged to general project expense. Except as a sanitary precaution, it is not allowable for the Government to bear the expense of burial. The amount of burial expenses which may be paid from the hospital fund will be limited to \$200, this amount to include expenses of embalming, purchase of casket, purchase of burial lot, and all other actual and necessary expenses incident to local burial. This amount should, however, be considered the maximum to be so expended, and in arranging for such expenditures good business judgment should be exercised as in the purchase of any other service or commodity. The amount to be expended for actual and necessary burial expenses shall be determined solely by the United States, and no expense for the transportation of the body except for burial in the locality shall be borne by the United States.

25. Indians.—A deduction of \$1 per month should be made from the pay of Indian employees working off their reservation or working

on their reservation but not within a reasonable distance of an Indian Service physician. When on their reservation and within a reasonable distance from an Indian Service physician, but where adequate hospital accommodations are not available on the reservation but are available to the Reclamation Service employees, a deduction of 50 cents per month may be made from the pay of Indian employees for hospital service only.

26. **Vouchers.**—Vouchers for payments to physicians which provide for compensation based on the amount of deductions made, should give the numbers of pay rolls, service vouchers, etc., on which deductions were made, and the total amount of each of such vouchers should be shown.

27. **Where no deduction is made.**—Where no deduction is made from the pay of an employee for medical, surgical, and hospital services, no liability to furnish such services to such employee shall attach to the United States under this cooperative arrangement.

INFORMATION FURNISHED IN THE FIELD.

(See Promises.)

1. **Information as to policy or plans.**—Statements are frequently made by settlers and others on reclamation projects that field men have made promises that have not been fulfilled or have given information which was not correct. In order to guard against complaints of this character, field men, including engineers, instrument men, and assistants, water masters, ditch riders, etc., should not attempt to give information or advice to water users or others with respect to the work in hand or the policy or plans of the service. The giving out or publishing of information relative to estimates of the cost of construction of a project, unit, or portion of the work thereunder is particularly to be avoided, except after announcement thereof by the Secretary. It is expected that to all inquirers courteous replies will be given to the effect that, in order to prevent any misunderstanding, an order has been issued that information will be given out from the project office only. The person making the inquiry should be advised to apply to the project manager, stating the facts and asking for information upon the desired points.

2. **Land Office matters.**—Employees of the Reclamation Service, while permitted to give information as to the established rules and regulations of the General Land Office, should refrain from advising whether any such rule or regulation will apply to a particular case, and should not in any way attempt to forecast the decisions of the General Land Office.

INJURIES, COMPENSATION FOR, UNDER ACT OF SEPTEMBER 7, 1916.

Right to compensation.—In accordance with the act of Congress approved September 7, 1916 (see p. 511), superseding the compensation act of May 30, 1908, and its amendments, any civil employee of the United States who sustains a personal injury while in the performance of his duty, is entitled to receive reasonable medical, surgical, and hospital services and supplies, to be furnished by the United States medical officers and hospitals where possible, and, if the injury results in disability of more than three days, compensation is payable beginning with the fourth day; if the injury results in death, compensation is payable to the widow, children, and other dependents.

Rate of compensation.—The compensation payable during total disability is at the rate of two-thirds of the monthly pay, but can not exceed \$66.67 a month. Annual or sick leave, when available and subject to the rules of the employee's department or place of employment, may be used in preference to compensation under the compensation act.

Willful misconduct.—No compensation is payable if the injuries are caused by willful misconduct of the employee, his intention to bring about the injury, or intoxication.

First-aid treatment.—Every employee sustaining an injury should immediately seek first-aid treatment. This should be done no matter how slight the injury. Many slight injuries have serious consequences through failure to receive prompt attention.

Report of injury.—Any employee injured in the performance of his duty should at once make report of his injury to his immediate superior on the blank form which has been provided for this purpose. When the injured employee is unable himself to make such a report, the report should be made by some other employee in his behalf. This report of injury should be made for every injury resulting in any loss of time or in any medical service. This should be done even though the injury appears to be slight, as many injuries which at first seem slight become serious and give rise to claims for medical service or compensation.

Claim for compensation.—Claim for compensation should be made promptly upon the blank form provided for this purpose, which may be obtained from the foreman or other superior officer.

INSPECTION OF ACCOUNTS BY INTERESTED PARTIES.

A water users' association, an irrigation district, or any individual having an interest in the lands included in a reclamation project desiring information from the fiscal records of a field office of the Reclamation Service should—

(a) File application in writing with the project manager, stating what interest the applicant has in the project and the nature of the information desired.

(b) The project manager, if satisfied that the giving of such information will not be detrimental to the public service, will indorse on such application his approval, whereupon the information sought will be promptly supplied and a record made thereof. If the application be denied, the project manager will indorse the reasons for disallowance thereupon and promptly forward the same to the chief of construction, who will forward it to the director for transmission to the Secretary of the Interior in case of appeal.

(c) When application is received for information which will require undue labor and expense, an estimate of such expense should be made and the applicant required to deposit the amount before the work is undertaken. (Secretary's Order of Nov. 15, 1909.)

INSTRUCTIONS BY MEMBERS OF COMMISSION IN THE FIELD.

Matters presented to any member of the Reclamation Commission in the field for approval should be submitted in writing, and if approved, the party presenting such matter should promptly forward to the Washington office a copy of the document with notation of the approval.

MANUAL AMENDMENTS.

1. **Issuance of.**—Manual amendments will be issued as occasion demands, either monthly or quarterly, and will be embodied in printed loose-leaf sheets for insertion in their proper places in the manual. Each group of amendments will be accompanied by a separate printed list of the amendments, numbered serially, and giving the page number in the manual where each amendment should be inserted. Neostyled amendments may be sent to the field occasionally, but these will be replaced as soon as practicable by the printed amendments.

2. **Procedure to be followed.**—Each person receiving the manual is required to keep it up to date, under the following procedure:

First. Immediately on receipt of the new loose leaves they should be inserted in the manual at the proper place as shown by the paging. Old loose leaves which have been superseded should be removed. Neostyled amendments should also be inserted in the manual at their proper places and removed on receipt of new printed loose leaves.

Second. After removal of the old loose leaves and insertion of the new, the old leaves should be plainly marked with the name of the employee charged with the manual and returned to the Washington office. Neostyled amendments should be destroyed.

Third. Lists of amendments should be inserted in the front of the manual. These lists are cumulative, and the latest list only should be retained, the preceding list being removed and destroyed, with the exception, however, that the final list issued at the end of each year should be retained in the manual as a permanent record.

3. **Check list in Washington office.**—A check list of employees receiving the manual will be kept in the Washington office, and they will be charged with the manual and each amendment. The return to the Washington office of the old loose leaves which have been superseded by new loose leaves is designed to serve as a check on the receipt of the new leaves. Employees are expected to cooperate to the fullest extent in keeping their manuals up to date.

**MATERIAL, SUPPLIES, AND EQUIPMENT, SALES OF, TO WATER
USERS AND CONSTRUCTION CONTRACTORS.**

1. **Appropriation not available.**—No part of the allotments or appropriations made for construction and operation and maintenance purposes on any project shall be available for the purchase of material, supplies, and equipment for sale through the mercantile store, or otherwise, to any other than employees of the service and their immediate families.

2. **Material, etc., on hand January 14, 1915, sale of.**—Sales of material, supplies, and equipment on hand as of January 14, 1915, may be made under the rules previously existing, provided the sale of such material, supplies, and equipment does not make necessary repurchases to replace the articles sold.

3. **Loan of.**—Whenever in the opinion of the officer in responsible charge of material, supplies, and equipment an emergency exists justifying the loan of any article on hand to a water user or construction contractor on any project, such officer, with the authority of the project manager previously secured, may so lend, for a period not to exceed thirty (30) days in any case, upon his own responsibility; provided, that he secure a written understanding or agreement properly dated and file the same in the project office, and said understanding or agreement must be so drawn as to afford ample protection for the return of the article to the service in the same condition, ordinary wear excepted, or its replacement by an exact counterpart, it being understood that the officer shall be held strictly accountable for the article in question.

4. **Surplus equipment, disposition of.**—The above paragraphs are not intended to in any manner limit the authority of project officials to dispose of surplus material, supplies, and equipment under the regulations elsewhere prescribed in the manual.

METHODS, SUGGESTIONS FOR IMPROVEMENTS IN.

When compliance with regulations is impossible or impracticable the fact should be reported to the Washington office or to the proper responsible administrative officer. The responsible managers, chief clerks, and special fiscal agents should be familiar with the statutes, regulations, and decisions of the Comptroller of the Treasury relating to the transaction of public business. The officers of the service should report upon requirements which seem to be obstructive, and present clearly specific cases where injuries or loss may result from the application of unsuitable regulations.

Intelligent and constructive criticism of methods is invited. Such criticisms should be specific, the facts being clearly stated with appropriate recommendation.

PHOTOGRAPHS.

1. **Taking photographs.**—Photographs should be systematically taken of all large construction work. In addition to general views and those taken to illustrate certain details, there should be taken each month a series of views from certain fixed points. In the case of a large dam, for example, there should be four stations established and plainly marked, their elevation and position being fully described. From each of these four stations located as nearly as possible at an angle of 90° to each other, pictures should be taken at stated intervals, using each time the same camera, the same angle, and the same direction so that the photographs will be identical in their field and the progress of the work can be definitely made out.

2. **Care in making exposures.**—Engineers in the field who take official photographs should use every precaution in making exposures to secure satisfactory photographs and should not undertake the work without thoroughly familiarizing themselves with the fundamental rules for exposure and the manipulation of the stops, etc., on the camera which they are to use. No great amount of skill or experience is needed to get a clear negative, but careful attention to certain details is absolutely essential. Where the negatives are habitually overexposed, or foggy, or otherwise unsatisfactory, advice should be sought from some good photographer and the criticisms which have been made by the Washington office should be carefully considered.

3. **Development and printing.**—Negatives may be developed in the field in case of necessity, such as when it is desired to know at once if the negatives are satisfactory or whether another exposure should be made; otherwise they should be shipped, securely packed, to the Washington office for development and printing. In either case, a statement on the regular blank should be prepared, giving all of the essential facts of camera exposure, light, etc., signed by the man who took the picture. Negatives developed in the field either by the service or by local concerns, should be sent at once to the Washington office after the requisite number of prints have been made. Prints will be made at the Washington office and copies sent to the field. Here at least one official copy should be signed, dated, and a statement prepared in the form of a certificate giving the essential facts, such that the photograph may be used later if necessary in any legal proceedings.

4. **Care and shipment of films.**—Roll films and film packs are very sensitive both to pressure and to moisture. Therefore the film should not be left in the camera for long periods nor should the unprotected film be exposed unnecessarily to severe changes in temperature or humidity. It is desirable to expose a whole roll or pack of films in as short a time as practicable and place it at once in a sealed tube or package. Adapters (the film pack containers) should not be shipped to protect only one or two unexposed films. In removing the roll from the camera care should be taken not to allow the black paper to become too loose, but on the other hand, it should not be wound too tightly, as the pressure thus produced might cause abrasion marks in the finished negative, showing in the prints as black lines. Roll films should be shipped in sealed tin or paste-board mailing tubes. Film packs should be packed for shipment in a substantial manner so that they will not become crushed or bent. In all cases the outside of the package should be clearly and appropriately marked "Developed films" or "Undeveloped films."

5. **Washington office files.**—All negatives of important works should be deposited in the Washington office, if these negatives are sufficiently good for making prints suitable for reproduction. If it is desired to retain negatives in the local offices, duplicate or similar exposures should be made so that one set can be sent to Washington, and the other retained in the local office, or returned there after being developed in Washington.

6. **Filing poor negatives.**—It is not desired to retain in the files of the Washington office negatives which are not suitable for use in illustration. Some of these have value in an historic or engineering record. In such cases a single print will be made and placed on file in the Washington office, the negative being returned to the local office for preservation there. Prints not suitable for reproduction should not be mounted in the regular books, but filed away in envelopes suitably marked alphabetically by States and projects, indicating on the envelope the fact that the negatives have been returned to the local office.

POSTAL LAWS AND REGULATIONS.

1. **Use of penalty envelopes and labels.**—The following provisions of the postal laws and regulations are printed for the guidance of all employees of the service.

LAWS.

It shall be lawful for all officers of the United States Government, * * * to transmit through the mail, free of postage, any letters, packages, or other matters relating exclusively to the business of the Government of the United States * * * : *Provided*, That every such letter or package to entitle it to pass free shall bear over the words "Official business" an indorsement showing also the name of the department, and, if from a bureau or office [or officer] the names of the department and bureau or office [or officer] as the case may be, whence transmitted [with a statement of the penalty for their misuse]. (Act March 2, 1877, 19 Stat., 335.)

Whoever shall make use of any official envelope, label, or indorsement authorized by law, to avoid the payment of postage or registry fee on his private letter, packet, package, or other matter in the mail shall be fined not more than \$300. (Act Mar. 4, 1900; 35 Stat., 1124.)

Any department or officer authorized to use the penalty envelopes may inclose them with return address to any person or persons from or through whom official information is desired, the same to be used only to cover such official information, and indorsements relating thereto * * *. (Act July 5, 1884, 23 Stat., 158.)

REGULATIONS.

No article, package, or other matter * * * shall be admitted to the mails under a penalty privilege unless such article, package, or other matter * * * would be entitled to admission to the mails under laws requiring payment of postage. (Postal Regulations, sec. 499.)

Persons, not officers, writing to the executive departments or to officers of the United States concerning the business of the writers with the Government may not use the penalty envelope to transmit their correspondence. Officers authorized to use such envelopes shall not furnish them for use to contractors with the Government or to enable private persons or concerns to send free reports, etc., which they are required by law to make. (Postal Regulations, sec. 500, par. 1.)

Officers desiring official information from or through persons not officers may furnish penalty envelopes or labels to cover the same only with return address printed or written thereon. Where the information is to be forwarded periodically or on more than one occasion the envelopes or labels bearing printed return address may be furnished in quantities for the transmission of such information. (Postal Regulations, sec. 500, par. 2.)

The right of an officer of the United States to use the penalty envelope ceases immediately upon his going out of office; and he may not use such envelopes in transmitting papers connected with the settlement of his accounts or other business pertaining to the office he has vacated, except as he may receive them with requests for official information, with return address thereon, from a department or officer of the Government. (Postal Regulations, sec. 500, par. 3.)

Mail entitled to free carriage must relate *exclusively* to the business of the Government, consequently, any nonofficial matter made part of or inclosed in a letter upon official business removes the entire communication from the class of matter entitled to free transportation in the mails. Under the law provision is made for

furnishing correspondents with penalty envelopes when information is requested by the Government. Such penalty envelopes should have the return address fully written in ink or printed before being furnished the correspondent. It has been ruled that the answer to a request for proposals or the submission of invoices or return of vouchers after certification is not the furnishing of information to the Government, but constitutes a transaction for which postage should be paid by the party dealing with the Government.

2. **Weight limits.**—In order to be mailable under the penalty privilege the matter must be entitled to admission to the mails under the laws and rules relating to paid matter. Under the parcel-post law fourth-class matter is admissible in packages weighing not to exceed 50 pounds in the first and second zones and 20 pounds in the other zones. For other matter the limit is four pounds except for single volumes, books, and documents published or circulated by order of Congress, and printed or written matter emanating from any of the departments of the Government at Washington. Field offices are limited to the four-pound maximum except for single volumes or parcel-post matter. (See par. 8.)

3. **Foreign mail.**—Official correspondence admissible to domestic mails under penalty envelope or label may also be dispatched in the same manner to Canada, Cuba, Mexico, the Republic of Panama, and to the city of Shanghai, China, but to no other foreign countries. Penalty return envelopes can not be used by persons in any foreign country.

4. **Supplies purchased.**—Under the rulings of the Postoffice Department penalty labels should not be furnished merchants for forwarding supplies. It is permissible, however, to have the purchases delivered by the merchant to an employee of the Government, and such employee may then affix the labels if the packages are proper for mailing. In such cases the employee should take the package to the post office in person, and specifically call to the attention of the officials there the fact that the labels have been affixed by an employee of the Government after the delivery of the material to the United States by the vendor. This precaution is necessary to prevent possible long delay in transmittal owing to the receiving postmaster considering the package not entitled to transportation under the label.

5. **Improper uses of penalty privilege.**—Penalty envelopes or labels should not be furnished to prospective bidders to be used in submitting proposals, nor to water users' associations for use in transmitting through the mails advertising matter relating to the settlement of the project, nor in transmitting receipts for money paid by water users on reclamation projects, nor to merchants to use in transmitting invoices or bills for goods purchased. These are clearly outside of the legitimate use of the privilege. Envelopes bearing the

penalty seal should not be used to enclose private communications even though the writer intends to affix the regular postage stamps, as it may happen that the stamps will be forgotten or become detached. In either case the sender of such letter would be liable to a fine of \$300 as though the misuse had been made with full intent.

6. Registration.—The official mail of Government officers located at Washington, D. C., is entitled to registration free of charge when presented by them at the post office in Washington, D. C., or at other offices when they are temporarily away from Washington. Mail matter registered from the field offices must be covered by the payment of the full registry fee. Special fiscal agents are authorized to pay for stamps for registration of official matter, and to reimburse employees for such expenditure when included as an item of expense account. This authority does not cover the registering of checks mailed to claimants, but must be restricted to official business.

7. Post-office boxes.—Pursuant to a decision of the Comptroller of the Treasury of August 9, 1905 (12 Comp. Dec., 87), the Post Office Department will upon application by an employee of the Federal Government for a delivery box for official use, approved by the head of the department or bureau to which he is attached, instruct the local postmaster to assign a box to him without prepayment of rent, with the understanding that the rent therefor will be paid promptly at the end of the quarter. Application blank should be obtained from the local postmaster.

8. Parcel post.—The parcel-post law of August 24, 1912 (37 Stat., 557), as modified by orders of the Postmaster General, approved by the Interstate Commerce Commission, embodied in section 454, Postal Laws and Regulations, provides that hereafter:

Fourth-class mail matter shall embrace all other matter, including farm and factory products (and books), not now embraced by law in either the first or second class, or (with the exception of books) in the third class, not exceeding fifty pounds in weight (when mailed for delivery within the first or second zones, nor exceeding twenty pounds in weight when mailed for delivery within any of the other zones), nor greater in size than 84 inches in length and girth combined, nor in form or kind likely to injure the person of any postal employee, or damage the mail equipment, or other mail matter and not of a character perishable within a period reasonably required for transportation and delivery. P. O. Order No. 9009, July 10, 1915.

Official matter partaking of the characteristics of fourth-class mail (see sec. 454), weighing not in excess of the limit of weight prescribed for fourth-class matter * * * when presented under a penalty envelope or label, shall be accepted for mailing at any post office. (Postal Regulations, sec. 463, par. 4.) The Postmaster General may, in his discretion, by order, fix the time within which all parcels of the fourth class shall be delivered. (Act April 24, 1914, 38 Stats., 346.)

PRINTING.

No printing shall be done in the field unless authorized by the Washington or Denver office, and vouchers for such printing will be rejected except when accompanied by a copy of the authorization. Whenever it is desired to obtain authority for printing in the field a full statement must be given of the need of the service for such work and the reasons why it must be printed locally. If the reason given is that there is not sufficient time for the printing to be done in Washington, the reason for not presenting the matter at an earlier date must be stated.

PROJECT ORGANIZATIONS, CERTIFIED COPIES OF ACTIONS OF.

Matters which have been acted upon by the water users' associations, or irrigation districts, or the governing boards of such bodies, and submitted to the Reclamation Commission for consideration and action, should be presented in the form of duly authenticated copies, certified by the proper officers of such organization over the corporate seal, showing that the document presented is a full, true, and complete copy of the record of the action by the water users' association or other organization. If the organization has no seal, a statement to that effect should be made. This requirement is intended for the protection of the engineers and the commission from assuming obligations or taking definite action upon the basis of information incorrectly reported.

PROMISES.

No employee is authorized to make promises that in any way involve the service, directly or indirectly. It is impossible to recognize any alleged obligations for the payment of money, performance of work, or completion of irrigation systems in whole or in part unless the promise or agreement has been authorized specifically or in general terms by the Secretary of the Interior, and has been clearly stated in writing with signatures properly attached. Project managers and other responsible employees are instructed to disregard alleged oral promises and to report to the Washington office for suitable action any violations of this rule.

PUBLIC AID.

Although it is desirable to secure cooperation and moral support of citizens in localities where reclamation work is progressing, the law does not contemplate or authorize the acceptance from the public of aid, either material or financial. (Act. Sec., Oct. 6, 1905.)

PUBLICATION OF ARTICLES.

It is impracticable on account of the expense to publish full description of the features of the work completed by the service. It is desirable, however, that there should be prepared suitable descriptions, with diagrams and pictures, illustrating the important and interesting features of the works already built, and to have these printed in high-grade technical magazines, or other publications, as, for example, in the proceedings of the American Society of Civil Engineers. Comparatively short articles, particularly those of value to other engineers in the service and of interest to water users, are desired for publication in the RECLAMATION RECORD. These articles may be illustrated and as a rule secure wide publicity by being copied in the leading technical journals. A list of such articles is kept in the Washington office, giving alphabetically by States and projects reference to such descriptions. Persons inquiring about such matters are referred to publications in which such descriptions are published. Articles on the work of the Reclamation Service should be submitted for approval, before publication, to the director through the chief of construction.

PURCHASING.

[See also, Advertisements and bids, Competition, Contracts.]

1. **Responsibility for.**—The project manager has general supervision over the purchase of supplies and should approve all purchase requisitions, but the details of the work may be assigned to some other person. This person may be exclusively engaged upon this work, or he may also occupy the position of chief clerk, bookkeeper, stenographer, or he may be the project manager himself. In no case, however, should the special fiscal agent act as purchasing agent.

2. **Methods of making purchases.**—There are two recognized methods of making purchases, the first, under competition by means of thorough advertising. Such advertising may be for a purchase calling for a single delivery to be made promptly after the order and for a single payment; or it may be on the special contract form (7-707) which provides a brief form of contract for deliveries from time to time as ordered, separate payment to be made on each order, and running for a specified period not beyond the close of the fiscal year for which the contract is made. The other method is known as an open market order and is resorted to only in cases of exigency, where it is not feasible to delay a sufficient time to secure bids or where the purchase is excepted from the requirement of advertising. This method is exceptional, and whenever used the unusual conditions which justify it must be shown on a separate statement attached to the voucher. (See Advertisements and bids.) When competitive proposals have been received from a number of bidders, they should be abstracted. The abstract should be arranged in columns, placing the names of the articles and quantities in the left column and the cost at prices bid in columns at the right, one column being used for each bidder. If freight charges are to be considered in awarding the bid, they should be entered in a separate column on the abstract of bids. The freight columns need not be added. Each of these columns should be totaled. Wherever possible the estimated weight of the proposed shipment should be ascertained and the freight charges, if to be paid by the United States, estimated and added to the total of the bid price. The purchasing agent will thus know the total cost of the goods laid down at the project. With this information he will use his judgment in placing the order. If no substantial advantage is to be secured it is not advisable to split orders, but if a real saving can be made by dividing the order

this should be done. The placing of the order should not be unduly delayed after receipt of the bid, as merchants bid upon current prices which may fluctuate from day to day. If a project gains the reputation of long delays between receipt of bids and the issue of orders, the merchants will make allowance in their bids for possible fluctuations in prices, to the detriment of the project. All requests for proposals should bear the notation that the United States reserves the right to reject any or all bids received. If after the receipt of bids it appears that they are too high for any reason, it will be entirely proper to reject the bids and readvertise, bidders to be so advised.

3. Purchase of particular brand or patented article.—When a copyrighted or patented article is purchased, competition being actually or in effect dispensed with on that account (see Advertisements and Bids, par. 2), the voucher or the contract covering the purchase should be accompanied by a certificate of the responsible officer to the effect that the particular copyrighted or patented article would best serve the purposes of the Government, and convincing reasons for the statement must be given. Patented articles of a particular brand or make cannot be purchased without competition when other brands or makes of articles for the same use are available, as, for example, typewriters and automobiles.

4. Point of delivery.—Purchases should usually be made free on board cars at vendor's shipping point, in order to secure the advantage of any land grant deductions or any contract concessions which the railroads may have made to the Government. Some goods, however, are sold at uniform prices at all points, and in such cases they should be purchased f. o. b. cars at railroad station nearest to place of use. Purchases should if practicable be made in large quantities, and competition should be secured from the market nearest the producer of the goods to be purchased.

5. Discounts for prompt payment.—All requests for proposals should solicit discount for prompt payment, and if bids contain an offer of discount for such prompt payment this should be considered in awarding the contract or placing the order, and every effort should be made to make payment within the time specified and thereby secure advantage of the discount allowed. The discount should be computed on the gross amount of the purchase.

6. Payment should be made promptly.—Payment for all purchases should be made as promptly as possible, whether discount has been offered or not, as this improves the credit of the service with merchants and will secure better treatment and in many cases, better prices than if payment is delayed unduly. If vouchers representing purchases call for a large amount and the special fiscal agent's balance is not sufficient to cover, or if it is inadvisable to deplete his

balance by its immediate payment the voucher should be forwarded to the chief of construction for payment by the disbursing officer located in Denver.

7. Denver office, purchasing through.—Facilities for the purchase of equipment, materials, and supplies are maintained in the office of the chief of construction at Denver, Colo. All requisitions will be placed with the Denver office for the following requirements: Automobiles, motorcycles, explosives (except in limited quantities), cement, drain tile and sewer pipe, reinforcing steel, electrical machinery and equipment, lumber for certain projects not in or adjacent to lumber-producing territory, structural materials, including steel, bolts, nails, wire, pipe, flumes, gates, etc. (except in limited quantities needed for immediate use), construction machinery, equipment and tools (except in limited quantities), tents, office furniture and equipment, and all purchases of an unusual nature. Where limited quantities are excepted above reference is had to quantities costing \$50 or less. All surveying instruments, transits, alidades, levels, meters, etc., will be furnished by the Washington office.

Requisitions may be placed with the Denver office at any time and if any items are especially urgent it should be so stated but project managers are requested to anticipate their needs to permit sufficient time for proper advertisement and to include all items possible in a regular monthly requisition to be submitted at time stated for respective districts.

In submitting purchase requisitions to the Denver office with a drawing or drawings showing the material to be purchased, one negative (Van Dyke) of each drawing should be furnished instead of tracing or blue prints.

8. Charges for purchases made by Denver office.—The cost of making purchases by the Denver office will be charged monthly to all projects on the following basis: Fifty per cent of the cost of the purchasing department to all projects in the ratio that the gross expenditures on each project bears to the gross expenditures for all projects for the same month, and 50 per cent to projects for which purchases are made in the ratio that the cost of purchases for each project bears to the cost of purchases for all projects during the same month.

9. Full and accurate descriptions desired.—All requisitions made upon the Denver office for purchases shall be stated on Form 7-702. Care should be exercised to give a full description of the articles to be purchased. Specifications should be drawn to conform as nearly as possible to commercial standards, practices, and usages, as any variation means additional cost and delay in shipment. Advertisements should, when possible, state the specific purpose to be served by the supplies required. This often enables bidders to quote more intelligently, and they sometimes make suggestions that

result in economy. In buying dry goods, boots, and articles of an analogous nature, specifications should always show quality desired, as prices on these articles vary so much, quality considered, that the bidder should have a fair opportunity of knowing exactly what is wanted. Rush orders are expensive and should be avoided where possible.

10. **Engineers may inspect bids and recommend which to accept.**—It is sometimes impossible to describe exactly what is wanted, and the project manager may wish to exercise some discretion in the placing of the order. In such cases he may request the Denver office to submit bids to him for consideration before placing the order. In all such cases, however, recommendation for award should be made to the Denver office, and that office should place the order.

11. **Project purchases.**—Project managers shall use their best judgment in purchases made for the project, and except as above may make purchases direct or through the Denver office in accordance with necessity and conditions, but will be held accountable for securing the lowest price obtainable consistent with quality and for anticipating their needs so as to permit sufficient time for proper advertisement.

Copies of all advertisements issued or purchase orders placed by the projects will be immediately mailed to the Denver office with list of dealers supplied with same so that where time permits such office may secure bids from other dealers and have the same considered in the award. Articles manufactured in the East or goods produced in the markets contiguous to Denver should ordinarily be purchased through the Denver office, which is well known in that market as representing the service in that territory, and as large purchases are constantly being made, merchants in that locality will usually submit better bids upon requests originating from the Denver office than upon occasional ones coming from distant points.

12. **Mercantile store purchases.**—Supplies purchased for the mercantile store should be selected not only with a view to securing the best prices but with a view to securing goods which will be most satisfactory to the persons to be served by the store. In this case it may sometimes happen that the more expensive goods will be purchased rather than the less expensive article. These articles are purchased for sale and not for use by the Government, and therefore their salability should be considered; but full competition must be secured. Overstocking and extravagance in purchasing should be especially avoided. Large scale purchases for mercantile stores should be made through the Denver office.

13. **Books.**—The purchase of books in the field has never been generally authorized. No such purchases will be allowed except in

pursuance of prior authorization from the Washington or Denver office, and a copy of such authorization must accompany each voucher covering such purchase. It is necessary that a strict account be kept of all books purchased for the entire service in order that the appropriation for these items may not be exceeded; therefore all orders should be placed by the Washington office, except when a field purchase has been authorized, in which case full data must be reported to the Washington office. Technical books will be purchased only after authorization by the chief of construction or the Washington office. Requisitions for law books should be submitted to the chief counsel for consideration. The department has been opposed to authorizing subscriptions for local papers or the purchase of extra copies under ordinary circumstances.

14. **Transfers.**—Machinery and equipment can often be secured by transfer from another project, and all project managers are expected to keep the Denver office fully advised of any such property available for transfer or date on which same will become available with complete description, condition, and transfer value, f. o. b. cars, in order that same may be considered when requisitions are received.

15. **Routing.**—Instructions for routing freight shipments of any considerable quantity will be obtained from the Denver office in order to secure the best routing and most advantageous rates.

16. **Samples.**—In inviting proposals for a large purchase of groceries, mercantile store supplies, etc., bidders should be requested to submit samples. These samples should be carefully examined before placing the order, and the samples of the successful bidder should be retained to compare with the goods furnished. If samples are of sufficient value to make it a hardship upon the bidder to leave them with the service, they may be included in the order and paid for.

17. **Request for purchase.**—These blanks (Form 7-701) should be numbered consecutively and in duplicate, and should be issued to storehouse clerks and other clerks in charge of receiving departments, after filling in the blank spaces provided for project name with a rubber stamp. When clerks of such departments receive requisitions which they are unable to fill on account of depleted stock, or for other good cause, they will write out a duplicate request for purchase on the purchasing agent, using carbon sheets for impression; they will send the white (original) copy to that officer and keep the yellow (duplicate) copy until copy of the purchase order is received from the purchasing agent covering the particular request for purchase. Until the copy of the purchase order is received by the storehouse clerk, he will use his file of requests for purchase as memoranda with which to follow up such requests. When the purchase order is placed, both the purchasing agent and the storehouse clerk will file their copies of their requests for purchase, making reference to the pur-

chase order. Whenever the storehouse clerks, mercantile store clerks, or other clerks in charge of issuing departments find their stocks are getting short and new supplies needed, they should present a request for purchase (Form 7-701) to the purchasing agent for the required supplies.

18. **Purchase order.**—The purchase order (Form 7-711) should be made out in triplicate, one copy being for the merchant, one for the storehouse clerk, and the other for the project office. If a forwarding agent is employed on the project, a fourth copy should be sent to him. All parties concerned in the transaction are thus enabled to keep a lookout for the shipment, and hurry it through to destination. The several copies of the order are then placed in an unfilled order file, and when the goods have been received it may be removed and filed in the usual manner.

19. **Purchase order, acknowledgment of.**—Form 7-717 is to accompany important purchase orders so that the project office may have an acknowledgment of their receipt by the merchant.

20. **Purchase order book.**—The purchasing agent should keep a purchase order book. Any form of blotter will do for this purpose. In this book should be listed all purchase orders consecutively by number, giving the amount of the order, name of merchant from whom ordered, for whom ordered (features, etc.), and any other necessary notes.

21. **Purchasing agent's card record.**—Every project purchasing agent should keep a price book or card record, showing the prices of all articles purchased, and endeavor to keep it up to date. This information is of great value to the purchasing agent in considering bids received and in making estimates of the cost of a certain article or group of articles. In placing orders, care should be exercised in giving shipping directions and instructions for marking packages, boxes, etc., giving order number, etc.

RENTAL OF COTTAGES, ROOMS, TENTS, ETC., TO EMPLOYEES.

1. **Monthly rental.**—Employees occupying separate houses constructed by the service should in all cases pay monthly rental. This should be collected by deductions from pay-roll earnings. Persons occupying rooms in quarter houses and dormitories may or may not be charged for the use of the rooms, dependent upon the character of the building and the usual practice in the neighborhood. When rentals are charged they should be fixed as follows:

(a) Masonry, concrete or brick buildings constructed in connection with dams, headworks, etc., so as to be in keeping with the permanent character of the structure: A special rate to be applied which has been previously approved by the chief of construction on report and recommendation of the project manager.

(b) Frame or veneer buildings, built as permanent quarters for employees at project headquarters, ditch-rider stations, or other points on the project where employees will be permanently located: A monthly rate of about 1 per cent of the cost of the building.

(c) Frame and adobe buildings constructed as temporary quarters at construction camps, etc., where they will be of doubtful or unknown value after completion of the particular feature for which they were constructed: A monthly rate to be fixed with a view of returning the total cost during the estimated number of months of use.

(d) Tents and tent houses wherever furnished as follows:

14 by 16 feet or smaller, with fly, unmounted, each \$2 per month; on frame and floor, \$4 per month.

16 by 18 feet, with fly, unmounted, each \$3 per month; on frame and floor, \$5 per month.

18 by 30 feet, with fly, unmounted, each \$4 per month; on frame and floor, \$6 per month.

Other sizes in similar proportion to floor space.

2. **Basic rate.**—The basic rate, where dependent on cost, will be fixed on the total construction cost of the building including cost of preparing ground, supplemental building, etc., plus all or a proportionate part of cost of water system, lighting system, sewer system, etc., according to whether the same is used exclusively for the building furnished or for more than one building.

3. **Extra charges.**—The rental charged will in no case include any services, equipment, or domestic commodities such as heat, light,

water, etc., for which, if furnished, an extra charge will be included, in addition to the monthly rental, at a rate based on the value of such service.

4. **Changes in rates.**—The aim should be to collect the reasonable value of the services rendered, and where the above rules are subversive of this aim, appropriate deviation should be recommended for the approval of the chief of construction.

5. **Repairs.**—The Government will furnish only such repairs for maintenance of buildings as will keep them from deterioration, the balance to be furnished by occupant.

6. **Posting rates.**—When the rates as above provided for have been approved they should be posted at some point where they can be observed by all employees. Applications to rent buildings or tents should be signed by employees occupying Government buildings and tents, only one copy being taken, this to be filed in the project office. Where it is customary for contractors, railroads, or other concerns operating on a large scale in the neighborhood to furnish temporary bunk-houses to employees without rental it may be advisable to conform the practice of the service to the custom. In such cases authority should be secured from the Denver office.

REPORTS TO WASHINGTON AND DENVER OFFICES.

[See also District Counsel, Instructions regarding duties of.]

1. **Monthly abstract for Reclamation Record.**—This is a statement on Form 7-341 covering storage conditions, temperature, precipitation, crop prices and shipments, and a brief text, giving in concise form the progress in construction work; labor conditions; items of interest relating to operation and maintenance of canals and structures; water supply and distribution; agricultural and crop conditions; settlement, etc. The nature and extent of the work done during the month should be clearly indicated in sufficient detail to be entirely intelligible to persons not familiar with local conditions, and when commencement of work on any feature has once been reported, later reports should state the progress thereon until completion or suspension. These reports should be prepared and forwarded direct to the Washington office immediately after the close of the months to which they relate.

2. **Monthly construction and operation and maintenance report.**—This is the official statement showing month by month the progress made in important lines on each project. It should be brief, seldom exceeding three or four typewritten pages and should present in systematic form under suitable headings general progress on all work, labor and weather conditions, progress on construction by features or other logical arrangement, surveys and other field operations, matters relating to operation and maintenance of completed works, seepage and drainage conditions, water supply, settlement, agricultural conditions, executive organization, and other important matters. Photographs and miniature drawings, illustrating progress in construction of important features and letter-size diagrams or maps with shaded areas or underscored words showing location of current work are desirable. The report should be prepared in duplicate, the original being sent to Denver and the carbon copy direct to the Washington office.

3. **Annual report of the service for the fiscal year.**—Material for this report is prepared in the field by projects shortly after the end of each fiscal year and compiled in the Washington office for presentation to the Secretary, who in turn presents it to Congress. This report is impersonal in character, but should be written in a more or less popular style with a view to preventing it becoming so formal as to be uninteresting. In preparing the statistical data and descriptive

matter for each project the arrangement and general character of the preceding report should be followed, subject, however, to such special instructions as may be issued by the director each year regarding rearrangement or new features. On the completion of any large feature of a project it may be desirable to give a more extended description thereof, repeating some or all of the descriptions previously given relating to that matter, in order that information relating to final conditions and engineering plans may be brought together.

4. **Annual project histories, calendar year.**—The annual project history should be prepared by the project manager at the close of each calendar year. The following general instructions should be followed in the preparation of these reports: All typewriting should be double spaced except in the case of copies of board reports and extracts from other reports, which may be single spaced. Paragraph or center headings should be used frequently to provide ready reference to the information in the reports. Photographs, maps, and plans of important structures should be included in the text where needed. References should be made in the appropriate place to important reports and papers forwarded during the year, giving dates. The volumes (8 by 10½ inches in size) should be bound inexpensively but securely with heavy paper covers on which the title is appropriately noted. The following is a general outline of chapters to which all such reports should conform as far as practicable:

INTRODUCTION.—*By project manager.*

- Map showing, by colors or otherwise, work completed up to end of previous calendar year, during calendar year, and in contemplation.
- Outline of irrigation plan of new units, if any.
- A statement of the general character of work during the year.
- Summarizing the following chapters written *by men actually in charge of work.*
- Brief note of the more important operations and of personnel.
- Cooperation with State officials, Agricultural Department, Geological Survey, Weather Bureau, etc.
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- Reclamation extension budget.
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 Store house operations, stock carried, savings by parcel post.
 Machine shop operations, work done and cost.
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5. **Annual operation and maintenance report.**—This is the annual report of each completed project, or each unit which has been brought to a degree of completion where the farmers are raising crops. It is devoted to the operation and maintenance of completed works and the results obtained, methods of management and all other items which are of interest from the economic and industrial side. This report is made for calendar instead of fiscal years as on nearly all of the projects this plan enables a full season's work to be incorporated in one report. It should be prepared primarily by men in direct charge of the operation and maintenance of the project and should embody their ideas, and be sent to the director with copies to the chief of construction and supervisor of irrigation. In the case of Indian projects an extra copy should be sent to the Washington office for transmittal to the Office of Indian Affairs. Full instructions regarding this report are contained in the *Operation and Maintenance Use Book* (p. 359), including a suggested outline for such reports.

6. **Summary of results and equipment.**—These reports are of a statistical nature and should be forwarded from each project as soon after the close of the fiscal and calendar years as it is possible to collect the material. Forms 7-888 and 7-889 should be used in compiling and transmitting the reports. Before forwarding the summary of results it should be compared with the previous summaries for the purpose of detecting discrepancies, and any reductions in quantities should be fully explained.

7. **Special reports.**—Events or developments on a project having an important bearing on administrative questions, decisions of engineering

boards on proposed work, results of special investigations, etc., should be made the subject of special report to the Denver office. Long reports on important matters which are likely to be submitted in the Secretary should be so prepared as to be available for transmission to the department; that is, matters relating wholly to administrative questions or internal affairs should be presented in a separate letter and the report should cover only the broad questions of policy which are to be passed upon by the department. In all such cases a carbon copy of the report should be forwarded to the Denver office, together with duplicates of maps and other inclosures. Accidents involving loss of life or destruction of valuable Government property, or destruction of works by fire or flood, should be reported without delay, and after thorough investigation into the cause of such accident or fire a full report should be forwarded.

SAFETY-FIRST RULES.

[See also Sanitary Regulations.]

1. **Defective tools.**—Each and every employee of the Reclamation Service is hereby instructed to report to his foreman any defective tools or appliances or any feature of his working conditions or surroundings which he thinks may affect the safety of himself or others.

The engineer in responsible charge of a job, or one of his principal assistants, should make a regular inspection at intervals of one month of appliances, particularly cables, anchorages, powder houses, and the safety appliances on machines.

2. **Injuries to be reported at once.**—If you are injured, you should report or get word to your foreman at once.

If you find anyone injured or sick on the work, whether an employee or not, report the matter immediately.

3. **Intoxication.**—Do not report for work when under the influence of liquor. Intoxicating liquors about the work are strictly prohibited.

4. **Watchfulness.**—Vigilance and watchfulness insure safety. To avoid danger adopt the safe course. An employee must not trust to the care exercised by another when his own safety is involved, but, on the other hand, always consider the safety of others.

Never rush from the light into a dark place or from the dark into a light place. Go slowly; use caution.

5. **Working above or below others.**—When working above others great care must be taken not to drop any material without first giving warning to those below. When you are going to work either above or below other men, let those men know about it.

Never throw down any material without first looking to see that it will not hurt somebody.

Keep from under loads suspended in the air.

6. **Neatness and order.**—Neatness and order are a safeguard against accident.

Do not leave bars, tools, or material of any kind in such position that they are likely to fall and hurt some one.

When you complete a job never leave tools or materials overhead, and always replace safeguards.

Any workman removing a cover from any opening in a floor, tunnel, etc., must see that it is properly replaced before leaving the place.

7. **Riding on cars.**—All employees, except those specifically designated below, are strictly forbidden to ride on moving cars.

(NOTE.—Designate those authorized to ride.)

8. **Working around machinery.**—When working around machinery in motion do not wear gloves or clothing with loose ends or loose-fitting coats or sleeves.

Do not reach or lean across moving belts or gears.

No one must undertake to put on or remove a belt while the wheels driving it are in motion, except men skilled in such work, and they must always use the proper appliances for the purpose.

Never undertake the removal of a belt which has become wrapped around a shaft or pulley while such is in motion.

Do not touch electrical machinery, power or electric-light wires, unless you are properly authorized to do so.

Do not start machinery or turn on electric connection without first seeing that no one is in a position to be injured and that all safety guards are in their proper places.

9. **Handling teams.**—Only such employees as are properly designated for and assigned to such work should be allowed to harness, drive, ride, or otherwise handle teams.

10. **Defective ladders.**—Do not use defective ladders or stairways. Notify your foreman.

11. **Use regular roads.**—All employees shall use the regular roads for travel. They shall look out for moving cars and keep off railway tracks except at regular crossings.

12. **"Fooling."**—Any conduct which may be termed "fooling," such as wrestling, boxing, or throwing pieces of material, is strictly forbidden.

13. **Compressed air.**—Do not fool with compressed air and never blow compressed air on anyone.

14. **Positions of trust.**—No person in a place of trust shall deputize another to do his work without the sanction of his superior officers.

No person in a place of trust shall absent himself from work without a legitimate excuse, or having first obtained permission from his superior officer, and when possible he must send notice.

15. **Explosives.**—No one must handle explosives except men skilled in their use and properly authorized, and all precautions must be taken to prevent accidents from blasting. Explosives must not be left exposed or unguarded. In general they should be stored only in a magazine especially built for that purpose, and should be issued only by a responsible employee to a responsible employee. In order to prevent accidents to employees or the destruction of the Reclamation works by employees unfriendly to the service or to the country, the utmost vigilance should be exercised in the housing, care, and issue of explosives.

16. Special rules for employees handling explosives—

Do not smoke.

Light no matches.

Handling and firing of dynamite is very dangerous, both for you and others around you. Be careful.

Boxes of dynamite should be opened outside the powder house with wooden mallet and wedges. Remove scale from powder cans very gently; do not tear open the can in any way.

Keep powder away from electric machinery.

Keep powder dry.

Don't allow dynamite, powder, electric caps, or fuses to lie around loose in places where you or others are working.

Don't try to thaw dynamite, except with the apparatus especially prepared for this purpose.

Keep explosives, caps, and fuses out of the possession of unauthorized or unskilled persons.

Caps are very dangerous.

Do not bite them.

Do not drop them.

Do not step on them.

Do not carry them in your pocket.

Do not put them near dynamite.

Keep them dry.

Never store them with powder.

17. How to make a dynamite cartridge—

Keep away from a fire, windward.

Cut off square, or at a very slight angle, the proper length of fuse (never shorter than 2 feet).

Stick end of fuse into cap.

Crimp cap with crimper. (Never use a knife nor bite the cap.)

Seal joint with soap.

Unfold end of paper covering stick of dynamite.

Make hole in dynamite with round sliver of wood.

Lower cap into hole by fuse.

Fold paper around fuse and tie with a string.

18. Rules for blasting—

Tamp holes with wooden rammers only.

Ram powder down gently; do not pound.

Shake or spring or chamber only one hole at a time.

Watch your shots.

Allow plenty of time for the rock to cool before putting in another charge.

In charging holes with black powder put in two cartridges, one with a fuse and one with an electric exploder.

Send warnings in all directions to get under shelter before blasting.

Count your shots. If a charge misses fire, do not touch it except under personal direction of the general foreman. A well-made cartridge never misses fire.

No one should be allowed to go to the site at which the shots were fired until 20 minutes have elapsed.

19. **Deadly gases.**—Employees are cautioned against injurious and sometimes deadly gases resulting from blasting, particularly in tunnel work, shafts, wells, and in a sheltered open cut after firing a large blast.

SANITARY REGULATIONS.

1. **Tuberculosis.**—Attention is called to the Executive order of February 28, 1906, relating to the prevention of tuberculosis. The names of all persons who are afflicted with tuberculosis, or who are suspected of being afflicted, should be reported to the Washington office in order that suitable precautions may be taken to prevent the spread of the disease and to take such steps or give such advice as may lead to the improvement of sanitary conditions. The following regulations should be observed:

(a) All persons in Government employ are positively forbidden to spit upon the floors. This is a filthy, disgusting habit and may spread disease.

(b) Rooms, hallways, corridors, and lavatories shall be aired freely and cleaned effectually at least once a day and not during working hours.

(c) Spittoons shall receive a daily cleansing with very hot water and when placed ready for use must contain a small quantity of water to which should be added a small amount of carbolic acid as a deodorant.

(d) Dust must be removed as completely as possible by means of dampened or oiled cloths or mops. It should never be needlessly stirred up by a broom or duster, as this practice only spreads the dust and germs. The use of feather dusters is prohibited.

(e) Floors of tiling, brick, or stone must be scoured frequently with soap and water.

(f) The senior clerks in charge of workrooms will take measures to secure during working hours the admission of as much fresh air and sunshine as the conditions will permit. Janitors of sleeping apartments should have instructions to thoroughly air such apartments daily.

(g) The use of individual drinking glasses, or preferably paper drinking cups, is recommended.

(h) Persons in Government employ who suffer from pulmonary tuberculosis shall be separated when possible from others while at work.

(i) Such persons will not be permitted to use the public spittoons, but must provide themselves with individual sputum receivers, preferably of easily destructible material, and carry these with them on arrival and departure. These will be held strictly responsible for the disposal and destruction of their own sputum, so that no other person's health may be endangered therefrom.

(j) Such persons must provide their own drinking glasses, soap, and towels and shall not use those provided for the general use. The use of liquid soap and paper towels is recommended.

(k) Plainly printed notices, reading as follows: "Do not spit on the floor; to do so may spread disease," shall be prominently posted in rooms, hallways, corridors, and lavatories of public buildings.

2. **Camp care.**—Construction camps maintained in connection with irrigation projects afford exceptionally favorable ground for the spread of disease. It is therefore incumbent upon those in charge to provide against all conceivable conditions or circumstances which might result in an outbreak of disease among the engineers or laborers. The following sanitary code, modeled largely after the suggestions of the Commission of Immigration and Housing of California, has been promulgated to govern the location, construction, and maintenance of camps.

3. **Camp location.**—Especial care should be exercised in the location of camp sites. They should be placed upon well-drained ground where sun and air may have free access and as far as possible from bodies of quiescent water, such as bog holes, seepage ponds, and sinks. Low places along river bottoms, swamps, and wet areas should be avoided whenever possible, on account of the discomfort attached to wet quarters and the possibility of affording breeding places for malaria-bearing mosquitoes. In case it becomes necessary to establish a camp at any point where the ground water table is close to the surface, each camp structure should be surrounded at its base by a trench from 1 to 2 feet in depth with an outlet provided for emergency use to drain off water which may collect there.

4. **Camp layout.**—(a) Tents and portable houses should be arranged in rows so that the surroundings can be kept clean easily.

(b) The kitchen, mess and commissary houses should be at least 100 feet from the sleeping quarters.

(c) The stables and corrals should be at least 600 feet from the kitchen and mess house, and at least 500 feet from the sleeping quarters.

(d) The toilets should be placed at least 75 feet from the sleeping quarters and 200 feet from the kitchen and mess house.

(e) If incinerators for kitchen garbage are used, they should be located near the kitchen.

(f) The hospital should be 200 feet from the kitchen and mess tent and 75 feet from the sleeping quarters.

5. **Water supply.**—(a) A plentiful supply of wholesome water for drinking, cooking, and bathing should be supplied.

(b) In every case the supply must be absolutely free from organic contamination.

(c) Ground water supplies from wells should be covered at the top to insure against surface pollution.

(d) Old wells in questionable positions with reference to surface or outbuilding drainage should be condemned and, whenever there are no wells free from pollution upon a permanent camp site, new wells should be sunk at unquestionable points.

(e) Whenever it is necessary to erect a camp at which the only water available is open to suspicion, or is known to be contaminated with animal wastes, such water should be purified by boiling or by filtration. If the former course is taken, great care should be exercised to maintain at all times a sufficient quantity of stored water which has been cooled after boiling. In many cases where boiling has been resorted to for water purification, this rule has not been observed, and the members of the camp, finding no water or only that recently boiled, have been induced to drink raw water. Such an act destroys the value of all previous precautions.

(f) Filtered water is far more palatable and nearly as safe as that which has been boiled. The Berkefeld filter, or one of similar design, is best adapted for such use. Filters can be obtained in various sizes and should be installed with a suitable container to store filtered water. The pressure should be developed either by pumping direct through the filter or by placing a small reservoir at some point higher than the filter and allowing the filtration process to go on continuously into the clear water reservoir.

(g) All privy vaults and cesspools should be at least 200 feet from the water supply and so located that pollution is impossible.

(h) Frequent analyses of the water in use should be made to assure the water's purity.

(i) If drinking water is kept in a barrel, the barrel should be cleaned frequently. The water should be drawn from this barrel by a faucet, and a tight cover kept on the barrel to prevent men from dipping in with a cup and also to prevent insects from entering.

(j) The use of individual drinking cups should be encouraged among the employees.

6. Tents and buildings.—(a) The tents or portable houses or the more permanent wooden bunk houses used for sleeping quarters should afford at least 500 cubic feet of air for each person, unless there is some permanently open means of ventilation, such as a complete open side of the tent or building, or permanent open ends or permanent opening at the top.

(b) If wooden bunk houses are used, there should be ample window space. Doors and windows should be screened in warm weather to protect the occupants from flies and mosquitoes.

(c) There should be proper drainage around the tents and buildings, to keep the floors dry. In winter camps, tents and buildings should have wooden floors at least 12 inches above the ground.

(d) Floors in bunk houses or tents should be cleaned at least twice a week, using mops, brooms wrapped in damp cloths, or oil and oiled brushes. Dry sweeping should be discouraged.

(e) Iron bunks should be used, as they are easily made vermin proof.

(f) Mess and cook tents or houses should have all openings screened and the doors should have spring hinges, coils, or some other arrangement to close them automatically.

7. Kitchen and mess houses.—(a) Each door which leads into the outer air should be provided with a vestibule about 4 feet square, constructed in the following manner: The dividing partition and the door between the cook or mess tent and the vestibule should be of wood as well as the side walls of the vestibule for a distance of about 1 foot from the dividing wall. The door and walls should be painted black or some dark color; the remainder of the vestibule should be of durable wire netting and the door leading from the vestibule out of the same materials. With such a provision the flies which enter the outer screen door during the time when people are passing through will be caught in the vestibule and will congregate upon the wire part of the vestibule in preference to the dark colored wood next to the cook or mess tent, and only a very small proportion of the flies entering the vestibule will under such conditions escape into the larger apartment.

(b) If the cook and mess tents or houses are not built under a common roof, the passage between the two should be thoroughly screened, and if an entrance is made from the outside to the passage, vestibules should be provided, as above described.

(c) The kitchen and mess house should be thoroughly cleaned at least once a week, and the floor should be cleaned daily. Dry sweeping should be discouraged.

(d) All persons engaged in cooking and handling food should be examined carefully, with particular attention to whether or not they have suffered from typhoid fever or tuberculosis within recent years.

(e) Any person afflicted with a communicable disease should be kept away from the kitchen and mess house.

(f) In the case of cooks, helpers, and waiters, absolute cleanliness of person and clothes should be insisted upon.

(g) All perishable food supplies should be protected from putrefaction and insects. In remote localities where ice can not be obtained, a small screened inclosure should be built in the shade

and covered with burlap or canvas which should be kept wet in warm weather. This will keep fresh, meats, eggs, butter, milk, etc.

8. Garbage and refuse disposal.—(a) Kitchen garbage and refuse should be kept in fly-proof containers, preferably metal, until permanently disposed of. Such containers should be emptied at least once in two days.

(b) Fly-tight receptacles should be provided convenient to the sleeping quarters, for the collection of waste, such as paper, cast-off clothing, etc.

(c) All garbage should be disposed of either by incineration, by burying, or by feeding to hogs. (Hogs should not be allowed within a quarter of a mile from camp.) Garbage should not be fed to chickens, as they will not consume it all, thus affording fly breeding and feeding places.

9. Toilets.—(a) There should be a sufficient number of toilets at convenient places, so as to afford one seat for every ten persons.

(b) The toilets should be made fly proof. All openings should be screened with No. 16 or 18 mesh wire screen, and all cracks should be battened. The bottom of the shelter should be banked up with earth where the frame touches the ground.

(c) Doors should have spring hinges, coils, or some other arrangement to close them automatically.

(d) The seat covers should be constructed so as to drop down over the hole as soon as the person rises.

(e) The pit should be at least 4 feet in depth and when filled with excrement to within 1 foot of the surface the building should be moved over a new hole, and the old hole filled with earth or thoroughly burned out with oil or oil-soaked straw.

(f) The surface of the pit should be covered daily with crude oil, chloride of lime, or dry earth. Crude oil is preferable, as it is easily handled and the person who applies it runs no risk of contamination from the fecal matter; it is relatively small in bulk and easily transported; it keeps down bad odors and is repellant to flies; it does not fill the pit so quickly as the lime, thus prolonging the usefulness of the toilet.

(g) A urinal trough should be in each men's toilet, and this should be thoroughly washed out daily and the inside painted with crude oil.

(h) If a box or other receptacle is used to receive the excreta, the contents should be emptied twice a week, the receptacle thoroughly washed, and the inside painted with crude oil.

(i) Toilets should be built of tight material and be provided with a vestibule at the entrance similar to that described in the case of kitchen and mess houses.

(j) Cleanliness and care in the use of all toilets should be insisted upon.

(k) Paper should be provided in all toilets.

10. **Bathing facilities.**—(a) Bathing facilities should be provided, as tubs, showers, or a shelter built on a stream, where persons may bathe in privacy.

(b) If showers or tubs are used, there should be a sufficient number to provide one for every 20 persons. Showers are far preferable to tubs, as they are cheaper to install and are more sanitary. Furthermore, a shower can accommodate more bathers.

(c) In winter camps warm water should be provided for bathing purposes.

(d) In every case the places for bathing should be conveniently near the sleeping quarters.

(e) The waste water from baths should be properly drained away so as to avoid the formation of stagnant pools. Where the nature of the ground is not such as to readily absorb all wash water an excavation of proper dimensions should be made and filled with loose material to a level with the ground surface.

(f) All tubs and bathhouses should be kept clean.

11. **Towels.**—(a) Roller towels, if used, should be changed frequently.

(b) The use of individual towels rather than the common towel is strongly urged.

(c) Paper towels are suitable and can be furnished at small expense.

12. **Flies and manure.**—(a) The open manure pile should be eliminated.

(b) Stables and corrals near camps should be kept thoroughly clean.

(c) For permanent camps, cement floors with proper drainage for the stables are recommended. This eliminates the cracks common to board floors in which the offal collects and flies breed.

(d) Manure should be deposited daily in fly-proof receptacles and removed at least twice weekly to a specified dumping ground, where it should be burned.

13. **Mosquitoes and malaria.**—(a) Eliminate the mosquito.

(b) In regions where mosquitoes are numerous No. 16 or 18 wire mesh should be used for screening the bunk houses to keep out the mosquitoes.

(c) Where tents are used for sleeping quarters in malarial regions, the occupants should use mosquito nets over their beds to insure protection.

(d) If areas of stagnant water are present about the camp, the surfaces should be treated, once every 10 days, with a mixture of

crude oil and kerosene, half and half, to avoid the breeding of malaria-bearing mosquitoes.

14. **Sanitation service.**—(a) Where a civil-service or contract physician is employed, he should be in effect the health officer of the camp, fully alive to every possible improvement in sanitary conditions and alert to note and report to the project manager or construction engineer any laxity of methods which might tend to increase the camp morbidity and mortality.

(b) Each large camp should have one or more able-bodied men, whose entire time should be devoted to the cleaning up of the camp.

(c) The cooperation of every person in the camp is needed to secure the best results.

SUBSISTENCE.

1. **In general.**—Subsistence is not furnished employees as a part of their compensation, except when in an actual travel status, but where the service maintains mess houses a charge will be made to all employees for meals furnished, except to cooks, waiters, and helpers engaged in the preparation and serving of meals.

2. **Rate.**—The minimum charge will be 30 cents per meal, but where unusual conditions are present a higher rate should be charged.

3. **Method of collecting.**—Collection will usually be made by deduction from service earnings, though it may be by cash where meals are taken irregularly. In the case of the project manager, chief clerk, or others traveling over the project and taking meals at different points credit may be given to the mess and a corresponding charge made to the work on which the employee is engaged, thus avoiding the necessity of collecting cash or including these small items no travel-expense accounts. In order to make collections, either in cash or by deductions from pay rolls, arrangements should be made either by contract or under departmental regulations. If under departmental regulations such regulations should be posted in conspicuous places where they may be seen by all employees. (12 Comp. Dec., 180.)

4. **Visitors.**—Meals may be furnished free to contractors investigating with a view to bidding upon proposed construction, representatives from the Secretary's office upon official business, representatives of foreign countries, congressional committees, or investigating bodies authorized by Congress, prospective settlers, official representatives from the water users' associations, and newspaper correspondents (when the privilege is not abused). In all cases when free meals are furnished the mess should receive credit by transfer, at the regular rate, to the work on account of which the meals are furnished.

5. **Subsistence while in travel status.**—Reimbursement for subsistence will not be allowed—

(a) When an employee is at home.

(b) When an employee is at his station.

Reimbursement for subsistence will be allowed when an employee is in what is known as a travel status. In pursuance of the act of April 6, 1914 (Pub. No. 82), on and after July 1, 1914, only actual necessary expenses for subsistence will be allowed, and no officer or employee shall be paid any sum for such expenses actually incurred in excess of \$5 per day. (See Travel expense.)

TELEGRAMS.

1. **Departmental regulations.**—By order of the Assistant Secretary dated October 25, 1916, it was provided that—

All telegrams sent on official business by officials and employees must be marked:

Paid; official business; Government rate.

Charge Reclamation Service.

This is necessary to secure under the accounting routine of the telegraph companies the originals of telegrams sent "Paid," to be used in settlement of claims rendered by telegraph companies for telegraph service.

Where telegrams relating to Government business are filed with the telegraph companies by Government officials or employees not having authority to transmit same "Paid; official business; Government rate," and by persons outside the Government service, and therefore sent "Collect," settlement will be made based on impression copies as furnished by the telegraph companies.

2. **Commercial blanks.**—In an emergency necessitating the use of commercial telegraph blanks, the message should be plainly marked:

Paid; official business; Government rate.

Charge Reclamation.

3. **Unofficial messages.**—Unofficial messages should not be sent on official blanks. Whenever unofficial messages are found charged to the service on the bills of the telegraph company, they will be eliminated from the bill and the sender will be required to deposit with the service the commercial rates, which will be paid to the company.

4. **Voucher copies.**—The original messages or impression copies only of telegrams sent to the service in response to inquiries by outside persons or firms will be honored by the service in bills rendered by the telegraph companies. Copies which are not the originals of the transmitted message will be returned with request for originals.

5. **Signature.**—"The sender's signature in full" should be written with pen or pencil in the heading of Form 7-132. The name of the sender may be written with typewriter at the end of the message. Where telegrams are sent to persons not in the service and to whom the signing official is probably not known by name, the official title should follow the typewritten signature. The word "Reclamation" or "Reclamation Service" should only be used in connection with the signature for identification purposes when sending telegrams to persons not in the Service.

6. **Blanks.**—There should be no necessity for employees of the service using other than United States Reclamation Service telegraph blanks. The white form *only* should be filed in the telegraph office. *All former instructions requiring the filing of an extra copy in the telegraph office are hereby revoked.* Indian projects using Reclama-

tion Service blanks should cross out the words "Reclamation Service" wherever they occur on the blanks and substitute the words, "Office of Indian Affairs."

7. **Preparation.**—Telegrams should be prepared without punctuation or capitalization and then read carefully to note whether the message is intelligible, or is liable to more than one meaning. Messages are, of course, received without punctuation or capitalization, and frequently the last word of one sentence, when transferred to the beginning of the next, completely alters the sense. Punctuation marks are not counted or sent except upon formal demand of the sender, in which case they are charged for. Telegrams should contain as few words as possible consistent with absolute accuracy and clearness of meaning. Care should be exercised to select words which can not be properly given a construction inconsistent with the meaning intended to be conveyed.

Telegrams should be sent at night rates where the delay will not be an inconvenience or when the message is sent so late in the day that it will probably not reach its destination until after office hours. Where two officers of the service are located in the same town the superior officer should be addressed simply as "Reclamation," followed by the designation of the town and State. The other officer should be named; as, "Smith, Reclamation, Phoenix, Arizona." Confirmations should always be sent at once by mail.

8. **Code.**—The code should be used whenever it can be utilized to advantage. It is not necessarily confined to messages where secrecy is desired, but can be employed in shortening messages, particularly when it is desired to quote dates and figures, or descriptions of land. A confirmation copy of a telegram sent in code should be accompanied by a translated copy, for purposes of verification. The instructions in the code book should be read carefully. Copies of the departmental code are in all important offices of this service.

9. **Coding numbers.**—Separate words are not provided for each number, but their arrangement is such that by combinations and a proper use of prefixes provided, commencing with the word "Testable" on page 173 of the code book, any number or series of numbers may be expressed. To insure correct transmission and translation, care should be used in connection with the tables on pages 19 to 21. Any word in this table, used without a prefix, reads to the right for translation. Use of the prefix "Testable" would reverse this and cause the translator to read to the left instead. This applies with equal force to code words throughout the book, as any word in it can be used as a numeral, if desired, by use of the proper prefix.

10. **Cablegrams.**—If an occasion should arise making it necessary to communicate by cable, the message should be wired to the Washington office with request that it be transmitted by cable.

TELEPHONE SERVICE.

Section 7 of the act approved August 23, 1912 (37 Stat., 414), provides that no funds of the Government "shall be expended for telephone service installed in any private residence or apartment or for tolls or other charges for telephone service from private residences or private apartments except for long distance telephone tolls required strictly for public business," etc. November 12, 1912, the Comptroller of the Treasury held that the intention of the act was to prevent the Government's being charged with the cost of private and personal messages of employees, and not for the purpose of requiring Government employees to bear the expense of telephone messages on public business.

The above holding is reiterated by the Comptroller of the Treasury in opinion of August 19, 1913, relating to the use of the telephone in the Reclamation Service.

Where office and private residence are in different buildings, payment will not be allowed for telephone in the private residence.

TESTIMONIALS.

The attention of all employees is called to the fact that letters from them commending particular machinery or other manufactures have been used occasionally for advertising purposes and sometimes in an embarrassing way. It is therefore directed that the employees of the service decline to give any written expression of their views in regard to particular machinery or other manufactures in such a way that it can be used as an official indorsement.

TRANSPORTATION OF PERSONAL EFFECTS OF EMPLOYEES.

1. **Authority for use of Government bill of lading.**—An officer or classified employee of the service, when transferred for the good thereof, from one official station to another for permanent duty, may, within the discretion and under the written instructions of the commission issued in advance, be allowed freight and drayage charges, including transfer by stage where necessary, for the transfer of his household effects and other personal property used in official work, not exceeding 5,000 pounds, and for professional books shipped independently of such household effects and other personal property, not exceeding 300 pounds. Payment of freight charges on the property herein authorized to be transported at the expense of the service shall be made subject to proper freight contract and deductions as explained under "Transportation of commodities," Accounting Manual. These allowances are in excess of the weights transported free of charge as baggage under the regular fare by public carriers, and they may be reduced in any case in the discretion of the commission.

2. **Deposit to be made covering excess weight.**—Freight of the description shown in paragraph 1 in excess of the allowances provided for therein may be shipped upon the same bill of lading with the authorized allowance upon deposit with the fiscal agent, prior to issue of bill of lading, of a sum equal to the commercial freight charges on the excess, to be ascertained from or through the agent of the carrier at the point of shipment, less any deduction on account of freight contracts with railroads performing the service. The excess will not be shipped on Government bill of lading unless such deposit is first made.

3. **Method of packing and valuation.**—The maximum tare weight of any of the foregoing allowances shall not exceed one-fifth of the gross weight. With this end in view, burlap and excelsior should be used as a substitute for crating, and the use of lumber should be limited as much as possible. All shipments will be made at a limited valuation of \$10 per 100 pounds unless the owner requests shipment at an unlimited valuation in which case he will be required to deposit with the special fiscal agent the difference between the rate at a valuation of \$10 per 100 pounds and that at an unlimited valuation, to be ascertained from or through the agent of the carrier at the point of shipment.

4. Certificate required for each shipment.—For each shipment there must be promptly forwarded to the Washington office the following or similar certificate duly executed by an officer qualified to certify to its correctness:

I hereby certify that to the best of my knowledge and belief the property shipped on Government bill of lading No., consisting of pounds household goods and personal effects is the exclusive and personal property of, an employee of the United States Reclamation Service of status designated in paragraph 1 of the commission's order dated November 9, 1914, transferred permanently from to for the good of the Service, and that necessary advance authority was issued by the commission under date of, signed

I further certify this shipment is wholly in connection with such permanent transfer and represents the only shipment made or to be made by the said on the commission's authority above cited.

Deposit of \$..... to cover pounds at \$..... per cwt., shipped in excess of commission's letter of authority, has been deposited with, special fiscal agent at

.....
(Signature of certifying officer.)

.....
(Title.)

.....
(Date.)

TRANSPORTATION, PASSENGER.

1. **Official travel.**—All official travel, unless otherwise ordered, must be on through transportation via the cheapest practicable route.

Travel expense must be authorized in writing by an officer having such authority. Carbon copies of all special travel orders must be forwarded to the Washington office as soon as issued.

The project manager, or some employee designated by him, should carefully scrutinize and approve all items of transportation chargeable to his project, to the end that travel regulations are complied with in all particulars; also that only such items are passed for payment as are properly chargeable to the project.

2. **Purchasing tickets.**—Before the purchase of a ticket on a Government request the traveler should inform himself as to the most economical way in which the proposed journey may be made, and transportation should be secured accordingly. Frequently excursion or tourist rates are available. Round-trip rates between many points are less than two one-way tickets. Mileage or scrip books will usually be of advantage where any considerable travel is to be done, and through tickets will often permit stop-over at desired points and result in a saving in cost of transportation. Employees will be called upon to explain their failure to observe these instructions.

3. **Securing.**—Transportation for employees traveling on official duty may be procured by the use of Government transportation, payment of cash fares, or use of passes, the latter being limited by law to use on intrastate trips and in certain States only. Tickets should be secured by use of transportation requests where possible. If an agent refuses to accept such request a ticket may be paid for in cash and report made to the Washington office. Railroad conductors are not usually allowed to accept transportation requests. Sleeping accommodations may be obtained on transportation requests at the offices of the company or from conductors on trains.

4. **Issuance of transportation requests.**—Transportation requests are furnished in books of 10 and 25. Requisitions for transportation requests should be limited to 100 requests and should state the number of each size book desired. Frequent requisitions for a small number of requests are preferred to those for a quantity intended to last for a long period of time.

5. **Unofficial use of transportation requests.**—Field officers will be held personally responsible for the disposition and use of all transportation requests ordered by and charged to them. The use of transportation requests for procuring transportation for persons not employed by the Reclamation Service, or by employees for making personal trips with the expectation of making reimbursement to the reclamation fund, or in connection with duties as a witness where the expenses are properly payable by the Department of Justice is prohibited. The Reclamation Service is liable for payment for all transportation furnished on requests issued, whether the person using same is entitled to do so or not. It is therefore essential that care be exercised in handling requests, and supplies thereof should be kept under lock and key, preferably in the office safe or vault.

6. **Loss of transportation requests.**—If a transportation request or book containing such requests be lost the loss should be immediately reported to the project manager, giving the numbers of the requests. The project manager will prepare a report of the matter for the local and nearby railroad agents, asking that the request be taken up in case of presentation, and a copy of such report should be sent to the Washington office. If the requests are later located the railroad agents notified of their loss should be advised and requested to honor them when presented.

7. **Spoiled transportation requests.**—All transportation requests that are spoiled in issuing should be marked "Canceled" and forwarded to the Washington office for filing.

8. **Transfer of transportation request books.**—If the supply of transportation requests becomes exhausted, and this fact is not noted in time to secure a supply from the Denver office, a book may be secured from the nearest office. The office furnishing the book should immediately notify the Washington office of the transfer, giving the traveler's name, the number of the book, and the number of requests transferred.

9. **Instructions for use of transportation requests.**—A transportation request consists of three parts, the stub, which remains a part of the book, the request proper, which is presented to the railroad company's agent, and the memorandum copy. The traveler should at the time of issue note the following information in the space provided for same on the request and memorandum copy.

(a) Name of railroad company.

(b) Name of traveler, and if more than one person, the number of travelers and name of each, the latter being indicated on the reverse side of the memorandum copy.

(c) Initial and terminal points which the ticket or tickets cover.

(d) The initials of the second and subsequent railroad companies when there is more than one carrier.

(e) Place, date, signature, and designation of the person signing, and the cost of the ticket or tickets furnished, the price being secured from the selling agent.

(f) The name of the project chargeable with the cost of the ticket or tickets furnished.

(g) The kind of ticket or tickets furnished, whether first or second class, round trip, excursion, scrip, mileage, etc., (memorandum of requests covering mileage or scrip books on which a refund is payable, should also show the number of the book secured), and for sleeping or parlor car accommodations, whether standard or tourist car, upper or lower berth, seat only, etc.

(h) Upon the issue of a transportation request the traveler should detach the memorandum copy and immediately forward it to the office of the project, chargeable with the cost of the ticket secured thereon. The record of the use of the request which he will need when preparing his traveling expense account should be taken from the stubs, and the memorandum copy should not be held for this purpose.

10. Transportation requests, memorandum copies.—Memorandum copies of transportation requests must be forwarded to the project chargeable immediately upon issuance of the original to the transportation company.

11. Mileage and scrip books.—Mileage and scrip books should be used when advantageous, and when it is known that the mileage can be used in its entirety. Mileage and scrip books should be procured by the issuance of transportation requests. The memorandum copy should bear a note on the reverse side showing the form number and the individual number of the mileage or scrip book received. The name of the project chargeable should appear on the face of the request and memorandum copy, and the cost of the book should be noted on the face of the memorandum copy. When a mileage or scrip book is exhausted or when the time limit is about to expire the user should sign his name in the proper space in the application for refund or assignment blank and have the book forwarded to the Washington office for refund, accompanied by a statement bearing the approval of the project manager of the project chargeable, giving the number of the book, name of traveler, and listing each separate trip made.

12. Laborers, transportation of.—Transportation requests may be used to secure tickets for the transportation of laborers, providing the men agree to allow a deduction of the cost of the tickets from their service earnings. In the event of scarcity of labor, if by agreement at time of employment the laborer remains with the service six months or until the work is finished, the service will pay the railroad fare; if the laborer leaves before the expiration of the agreed time,

railroad fare will be deducted from the amount due. Transportation requests must not be issued to unclassified employees, either singly or in book form. If it is necessary to secure the assistance of labor agencies in connection with the employment of laborers the requests forwarded to cover their transportation should be filled out in the project office to indicate the points covered and should bear the signature of either the project manager or chief clerk. The date, name of the railroad company, and the names of the travelers can be indicated by the labor agency, and in transmitting the requests the labor agencies should be requested to indicate this information on the memorandum copy of requests. The filling in of requests at the project office applies also to the transfer of laborers and it is desirable that someone connected with the project office secure and deliver the tickets to the laborers at the railroad station. Tickets which are procured for men who fail to appear at train time should be forwarded immediately to the Washington office, with advice as to the number of the transportation request with which they were secured.

13. **Free transportation.**—Free transportation in connection with the care of live stock in transit may be secured when such shipments are made. Free transportation or special rates should not be solicited nor accepted for employees or their families for personal travel for interstate or intrastate trips. Concessions for interstate trips whether personal or official are prohibited by law and the policy of the department is opposed to the solicitation or acceptance by employees of concessions for personal travel wholly within a State.

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TRAVEL EXPENSE.

1. **Who are entitled to.**—Compensation for travel expenses will only be allowed to persons on a travel status by reason of holding general or special travel orders covering the periods for which compensation is claimed.

2. **General travel orders.**—A person holding a general travel order is entitled to compensation for travel expenses and reimbursement for subsistence while away from his designated headquarters at the rate specified in said travel order, but not more than 30 consecutive days at one place.

3. **Special travel orders.**—A person holding a special travel order issued for a particular journey is entitled to compensation for travel expense in accordance with the terms of said order until such journey is completed.

4. **Establishing residence, expenses while.**—Where an employee is assigned to a given place, to be designated as his headquarters, he shall upon arrival at such place cease to be upon a travel status. While in such travel status he will be entitled to reimbursement for expenses in the manner prescribed in his travel order.

5. **Designated headquarters, changing.**—When a field employee holding a general travel order is expected to spend a considerable period of time away from his designated headquarters, if subsistence is not to be allowed, his headquarters should be changed. When it is desired that such a change be made, a written recommendation to that effect should be made by the chief of construction to the director. (See pars. 2 and 12.)

6. **New appointees.**—For regulations regarding the traveling expenses of men newly employed and ordered to report from their homes to the place of their employment, see Employees, par. 31. A copy of the letter authorizing the journey and stating to what extent, if any, the traveling expenses are to be paid should accompany the claim for reimbursement.

7. **Securing reimbursement.**—Upon reporting for duty at the place of employment this letter of authorization together with the memorandum of expenses should be presented to the project manager, chief clerk, or other person in charge, who will see that the proper account is prepared and with the letter of authorization is forwarded to the special fiscal agent for payment.

8. **Registered employees, expenses of.**—For regulations regarding travel expenses of men in registered positions, see *Employees*, par. 31. The travel must be authorized in advance by a letter indicating clearly whether railroad fare or any items in addition are to be paid.

9. **Departmental regulations.**—The following paragraphs contain the regulations governing travel on official business, approved by the Secretary of the Interior September 30, 1914, and effective November 1, 1914. The heads of bureaus and offices may prescribe such additional regulations not inconsistent therewith as may be necessary to conduct effectually the work under their supervision, and such additional regulations are equally binding upon their respective subordinates. Appropriate changes have been made in the following regulations in so far as they apply to the Reclamation Service.

10. **Authority.**—All travel expenses shall be either authorized or approved in writing by the head of the department or the head of the bureau or office under whose supervision and direction the travel is performed, or by the subordinate officer to whom such authority has been properly delegated. Except as provided in the following section, the authority shall be issued prior to the incurrence of the expense; shall specify the travel to be performed as definitely as circumstances will permit, and shall be attached to the voucher for reimbursement or (if on file in the auditor's office) be referred to therein. It may also contain a provision authorizing the traveler to issue travel orders to his subordinate employees and directing the method of reference to the general travel order.

11. **Approvals.**—(a) Whenever the travel is a necessary and regular accompaniment of the office or place to which an appointment has been made and the general classes of the expense to be allowed are governed by law or are specified in the appointment, or (b) whenever the expense has been incurred on account of an emergency, the approval by the officer specified above of the travel voucher for reimbursement shall be sufficient authorization. However, all vouchers for reimbursement on account of emergency travel without prior authorization must be accompanied by full and satisfactory explanation of the facts constituting the emergency.

12. **Headquarters, how selected.**—The selection of official stations, when not provided by law, departmental regulations, a commission of appointment, or a contract of employment, and the assignment of temporary headquarters are placed under the control of chiefs of bureaus and of the independent offices, subject to revision by the head of the department upon his own initiative or upon application of an interested party. Each chief is expected to select official stations and to assign temporary headquarters with justice and equity to employees and in accordance with the best interest of the service. Whenever per diem or other expenses are allowable only when absent from

headquarters or from a given station, vouchers should contain sufficient information to enable the necessary facts to be determined.

13. **Route, how determined.**—All travel performed on official business must be by the shortest practicable route, unless otherwise authorized, and without any unusual or unnecessary delay. The route shall be carefully arranged to avoid unnecessary duplication of travel. When diversion from the shortest practicable route is permitted, the extra expense to be borne by the traveler, the charges for meals shall be limited to the meals which ordinarily would have been taken had the shortest route been traveled.

14. **Expenses, actual.**—In pursuance of the act of April 6, 1914 (Pub. No. 82), on and after July 1, 1914, only actual necessary expenses, such as are usual and essential to the ordinary comfort of travelers as defined in the following paragraphs will be allowed; and no officer or employee shall be paid for expenses actually incurred for subsistence as defined in paragraphs 22 to 24, inclusive, herein, in excess of \$5 per day.

15. **Railroad and steamer fares.**—Fares upon railroads, stage-coaches, steamers, packets, or other usual modes of conveyance: Charges for fares on steamers, packets, or other means of travel by water must show whether meals or lodging, or both, were included without increase of fare over the lowest first-class rate. (For meals on boats, see sec. 26; for excess fare on trains, see sec. 33.)

(a) Through tickets, excursion tickets, and round-trip tickets must be purchased whenever practicable and economical.

(b) Transportation requests are provided for the use of persons traveling on official business of the department, its bureaus and offices. They protect the traveler from any disallowance on account of an overcharge by the carrier. They may be procured upon application to the department or bureau or office thereof, and may be exchanged for railroad, sleeping or parlor car, or steamer tickets. They should not be used for the payment of livery bills, meals on dining cars, nor any expenses other than those specified. If an excursion rate is effective and available, it should be asked for, and the transportation request tendered in exchange should be marked "excursion rate." Should the agent of the company refuse to accept the transportation request for an excursion-rate ticket, a full-fare ticket should be procured in exchange for the transportation request, and the fact should be reported to the bureau or office by which the traveler is employed.

A traveler must not attempt to secure a refund from a transportation company for the unused portion of a ticket obtained in exchange for a transportation request. The unused portion of such ticket must be forwarded, with a full explanation, to the bureau or office by which the person is employed.

(c) Mileage or scrip books may be procured in exchange for transportation requests, but their use is not recommended except when it appears probable that they will be entirely used within the period of their validity.

When such a book is procured the fact must be immediately reported to the head of the proper bureau or office. The report must give the number of the transportation request exchanged, the name of the railroad issuing the book, the number of the book and the number of miles or the value of the scrip contained therein, the cost of the book, and all other information necessary to enable the administrative office to keep an accurate account of the use of said book. Each mileage book will be charged to the employee in whose name it is issued. He will be held strictly accountable for its proper use and the correctness of the number of miles or the value of the scrip detached for travel between different points, and when the book is exhausted, or when no further travel is to be performed on official business with said book, or when the time limit of the book is about to expire, it should be forwarded, without delay, to the head of the proper bureau or office for settlement. An employee in possession of such a book at the time of his separation from the service, or upon demand of the administrative office, must settle his accountability therefor before final payment of his salary will be made.

16. Excess baggage.—Charges for excess baggage, when the extra weight consists of public property or private property to be used for public purposes, must be explained. (See "Transportation of personal effects of employees.") When practicable, excess baggage should be forwarded by freight or express, and if prior authority is procured may be covered by Government bill of lading. Mailable articles should be forwarded by mail under penalty label by the Government officer or employee.

17. Special conveyances.—Hire of special conveyances, such as taxicabs or other automobiles, livery, or boat, only when no public or regular means of transportation are available and the necessary incidental expenses connected therewith, such as feed and stabling of horses and the subsistence of driver, ferriage, and tolls:

If the charges for special conveyance include feed and stabling of horses and subsistence of driver, or any such items, the principal voucher or subvoucher must so state. If not so stated, it will be presumed that they are not included.

When authorized by the project manager or chief of construction, a motor-driven vehicle, such as a motorcycle or automobile, owned by an employee may be used in travel on official business, reimbursement to be made upon the basis shown under "Vehicles and property, use of."

18. **Transfer of self and baggage.**—Fares on street car, transfer coach, omnibus, or other vehicle, and the transfer of baggage: A charge not to exceed 50 cents for either transfer coach or omnibus or for the transfer of each piece of baggage, if within the customary rate, will be allowed. Payment in excess of this amount must be explained in writing, and street cars must be used when practicable.

19. **Checking and handling of baggage.**—Charges for checking or portorage of hand baggage at hotels and stations, not exceeding 10 cents for each piece.

20. **Steward fees and steamer chairs.**—Customary fees to stewards and others on steamers as follows: For an ocean trip, not exceeding a total at the rate of \$1 per day or fraction thereof; on coastwise steamers, not exceeding 50 cents per day; rent of steamer chair, not exceeding \$2. On ocean and coastwise steamers, where meals are not included in the cost of passage, fees to dining-room stewards and dining-room waiters must be included as a part of the maximum daily allowance for subsistence. Fees to porters and cabin or deck stewards on such vessels will be deemed expenses of transportation.

21. **Pullman fares and stateroom accommodations.**—Sleeping-car fare for one double berth, customary stateroom accommodations on steamers and other vessels, and fare for one seat for each person in sleeping or parlor car, except those persons to whom allowance for sleeping or parlor cars is denied under the regulations of the bureau or office. Such charges must specify whether for a seat or upper or lower berth, and whether for standard or tourist service. Porter fees on sleeping cars must not exceed 25 cents per night. Porter fees on sleeping cars used in daytime or in parlor or chair cars must not exceed 15 cents per trip.

SUBSISTENCE AND EXPENSES INCIDENT THERETO.

Unless otherwise expressly provided by law, the subsistence items as hereinafter defined in sections 22 to 24 shall not be allowed in excess of \$5 per day. The points where expenses referred to in sections 22 to 24, inclusive, are incurred must be shown, except when actually en route.

22. **Meals and lodging.**—When the detention away from headquarters is incident to or necessary for the performance of the duties for which the travel is ordered, and necessary meals en route, but for no items of refreshment other than the ordinary food provided for travelers. Charges for meals must be itemized by meal in every instance.

23. **Waiters' fees.**—Fees to waiters at hotels or on dining cars or boats not exceeding 10 cents per meal, or 30 cents per day.

24. **Baths.**—Charges for baths not exceeding 25 cents each while absent from designated headquarters.

PER DIEM IN LIEU OF SUBSISTENCE.

25. Amount of.—Unless otherwise expressly provided by law, a per diem in lieu of subsistence in excess of \$4 will not be allowed.

26. Per diem, to include what.—Whenever a per diem in lieu of subsistence is granted by statute or administrative direction, it will be held to be in lieu of the items mentioned in sections 22 to 24, inclusive, and no other charges for any items of subsistence will be allowed. It shall also be held to include all items of expense except charges for railroad, steamboat, stage, and livery fares, and necessary sleeping and parlor car accommodations. No per diem in lieu of subsistence will be paid during travel on a boat when the charge for transportation includes meals and berth.

27. Commencement and termination of.—Whenever the allowance of a per diem in lieu of subsistence is dependent upon absence from headquarters or from a given station, it will be allowed for the day of departure from such place if the traveler departs before 12 o'clock noon and for the day of arrival at any such place if he arrives after 12 o'clock noon, unless otherwise directed by the head of the department, bureau, or office. Nothing in the foregoing sentence shall be construed as precluding reimbursement for actual expenses of subsistence in a case where per diem in lieu of subsistence would not be allowable thereunder.

MISCELLANEOUS EXPENSE.

28. Telegraph service.—Telegrams and cablegrams on official business at Government rates. Charges therefor must be accompanied by copies of the messages, marked to show whether sent at day or night rate, and, unless prepaid, must designate the bureau or office to which chargeable. Night service should be employed when practicable.

29. Telephone service.—Reasonable charges for the use of telephones on official business. Charges for long-distance calls should show with whom communication was held and the points between which service was rendered.

30. Personal services.—The occasional and temporary service of guides, packers, and interpreters, when necessary. When such persons are employed the official traveler may also pay for their transportation, subsistence, and lodging, and subvouchers must be taken in accordance with sections 39, 40, and 41.

31. Stenographic or typewriter service.—Charges for stenographic or typewriter service when provided by law or especially authorized or approved.

32. Incidental expenditures.—Charges for miscellaneous items of expense peculiar to the exigencies of the work on which employed.

Charges not allowed by bureau or office regulations must be specially authorized or approved by the head of the department, bureau, or office.

33. Emergency expenditures.—Emergency expenditures not enumerated in any of the foregoing classes, such as the payment of extra fare on limited trains when delay would injuriously affect the public interests or the use of an extra room at a hotel when necessary for the proper transaction of official business. When such a charge is made the nature of the emergency must be clearly set forth in writing and the expenditure must bear the approval of the head of the department or the chief of the bureau or office under whose supervision the travel is performed or of the subordinate officer to whom such authority has been delegated.

34. Field-party expenses.—Officials in charge of field parties may, when duly authorized, hire horses, employ drivers, laborers, cooks, and other temporary minor assistants for service in the field. When necessary, they may also purchase camp outfits and subsistence supplies, subvouchers to be taken therefor, in accordance with sections 39 to 41, inclusive. Subvouchers for subsistence supplies for camp use must show the number of persons composing the field party for the use of which the supplies were purchased. Such expenditures must be limited strictly to those obligations which it is impracticable to have paid directly by a disbursing officer.

EVIDENCE OF EXPENDITURES.

35. Memorandum of expense.—Every officer or other person traveling should keep a memorandum of the expenditures incurred, noting each item as soon as payment is made.

36. Voucher, the principal.—All accounts for reimbursement on account of travel expense shall be submitted on the regular voucher forms approved by the Comptroller of the Treasury and shall be itemized as fully as practicable.

Every such voucher must show what portion, if any, of the transportation was procured on transportation requests; what portion, if any, was procured by use of mileage books, giving the dates and points from and to, and the number of miles detached from the mileage book if one was used. The vouchers shall also show such analyses of expenditures as may be prescribed by the several bureaus and offices. Charges for transportation or auxiliary supplies not in accordance with published tariffs, customary rates, or usual prices should be explained. The principal voucher shall be supported by subvouchers, as required in sections 39 to 41, inclusive.

37. How verified.—All travel-expense vouchers, except as noted below, must be sworn to in the manner and form prescribed by law or approved by the Comptroller of the Treasury.

As provided by section 8 of the act of August 24, 1912 (37 Stat. L., 417-487), affidavits may be executed before a postmaster, an assistant postmaster, a collector of United States customs, a collector of United States internal revenue, the chief clerk of any executive department or bureau, or the clerk designated by him for that purpose; the superintendent, acting superintendent, custodian, or principal clerk of any national park or other Government reservation, the superintendent, acting superintendent, or principal clerk of any Indian superintendency or Indian agency; the chief of a field party (including senior engineers or project managers), or a notary public who is in the service of the United States. The officers named above are not permitted by law to make any charge for such service and no jurat fee will be allowed therefor.

Affidavits executed before any other officer who has been authorized to administer oaths for general purposes and whose signature is attested by an official seal will be accepted, but no jurat fee will be allowed.

38. False representations.—False or fraudulent representations in connection with the rendition of reimbursement or other accounts are unlawful, and the offender is liable to a heavy fine or imprisonment under the act of Congress approved March 4, 1911 (36 Stat. L., 1355).

39. Subvouchers, when required.—Express and freight receipts will be accepted as subvouchers and must be furnished for all such charges. The weight and rate must be shown.

Copies of telegrams or of cablegrams will be accepted as subvouchers, and must be furnished in support of all such charges. The copy shall show whether the message was sent at day or night rate.

Subvouchers must also be furnished for all other charges in excess of \$1, except as noted below in section 40.

40. Subvouchers, when not required.—(a) Subvouchers are not required for railroad or steamboat fares, sleeping or parlor car fares, taxicab fares (see sects. 17 and 18), nor for separate meals specifically named which were not taken in connection with lodging.

(b) Subvouchers will not be required when the taking thereof would disclose the identity of the traveler and the disclosure would be detrimental to the public interest, provided authority for their omission is granted by the head of the department, or by the chief of the bureau or office under whose supervision the travel is performed.

41. Subvouchers, how stated.—Subvouchers for hotel expenses must state the beginning and ending of the full period of service and the rate by the day or week. The "day" shall be considered as beginning with breakfast and ending with lodging. Receipted bills on the

regular billheads of the hotel are acceptable as subvouchers, provided they are properly made out to show the entire period and the services rendered.

Subvouchers for livery and other special transportation must describe the service hired as "one horse and buggy," "two horses and wagon," "with driver"; state the quantity of service rendered, and the rate of compensation by the day, hour, or other unit, as may have been agreed. If subsistence of driver or team is included in the cost of hire, that fact must be stated.

TRAVEL ORDERS.

Before any expense for travel is incurred by any person not holding general travel orders (Form 7-746) from the director, such person should be given by his superior officer specific orders on Form 7-747, "Special Travel Orders," copies of which should be forwarded to the Washington office. This special travel order should be based on general travel orders authorizing such superior officer to order his subordinates to travel. A copy of the special travel order must be submitted with each travel voucher of such subordinate employee before payment thereon will be made. General travel orders specifically state that "when it is necessary that your subordinate should travel on official business, you will, in advance, issue special travel orders to such employee on Form 7-747, a signed copy of which should accompany the travel expense vouchers." Form 7-747 makes no provision for the return journey; thus when it is intended that the employee should return to the point from which he started, such instructions should be plainly stated in the order, as well as all points to be covered by the particular trip authorized. (See Travel expense; Subsistence.)

VEHICLES AND PROPERTY, USE OF.

1. **Private use.**—Care must be taken to avoid the use or appearance of use of Government vehicles or other public property for private benefit or enjoyment. The laws on this point are explicit, and nothing will attract unfavorable comment as quickly as looseness in this regard. Responsible officers in charge must see to it that no practice of this kind is tolerated.

2. **Motor-driven vehicles.**—When authorized by the project manager or chief of construction, a motor-driven vehicle, such as a motorcycle or automobile, owned by an employee of the Reclamation Service may be used in the performance of his official duties, and in such cases gasoline, oil, and carbide for motorcycles or automobiles so used, to the extent of use certified as official, may be furnished. No payments can be made by the United States for maintenance or repair of motor-driven vehicles.

3. **Increased compensation.**—The compensation of employees in noneducational positions, such as ditch riders, gate tenders, etc., may be increased to cover the use of their machines, and when compensation is so increased no travel expense voucher filed by an employee so affected during the period such increase is effective should contain any items for operation of machines. No increase of compensation, however, shall be granted to Secretary's appointees under this regulation. Increases of compensation under this paragraph shall be allowed only after prior authorization by the director.

WELLS.

1. **Drilling and paying for.**—The reclamation fund can not be used for drilling artesian wells for exploration. Such wells may be paid for from the reclamation fund only in cases where there is sufficient knowledge in advance to make it probable that water will be obtained from them in sufficient quantities for the irrigation of lands, with the probability that the cost will be returned to the reclamation fund. (Mar. 3, 1903, 32 L. D., 278.)

2. **Cooperation.**—The Government may, however, under certain conditions, use reclamation funds to cooperate with a State in making "investigations for searching and sinking or drilling an artesian well for water at a suitable site to be located on a section of unoccupied State school land." (See contract dated Apr. 19, 1916, with the state land department and the governor of Arizona.)

3. **Drilling to determine availability of underground waters.**—The drilling of wells in the vicinity of an irrigation project for the purpose of determining whether underground water exists that may be available in connection with the project comes within the power conferred by section 2 of the Reclamation Act, "to make examinations and surveys * * * for the development of waters." (Mar. 30, 1906, 34 L. D., 533.)

YOUNG MEN'S CHRISTIAN ASSOCIATION.

The Secretary of the Interior may employ as stewards, inspectors, or the like, trained secretaries of the association or men of experience in social improvement work to better the conditions in construction camps and to look after sanitary and related matters, in accordance with instructions from the physician, where one is employed, as incidental to the employment and as a part of the compensation of said employees, and payment therefor may be made from the reclamation fund. (Apr. 9, 1908, 14 Compt., 672.)

ENGINEERING.

CEMENT.

1. **Purchases.**—All purchases of Portland cement will be made by, and all correspondence regarding cement should be addressed to, the chief of construction. Early in the calendar year engineers should estimate as nearly as possible what amount of cement will be required on their work during the following fiscal year in order that arrangements may be made to issue advertisements covering the requirements of all projects. A call for such estimates will be issued each year by the chief of construction, and response should be prompt to insure the award of contract far enough in advance of shipments to give time for 28-day tests.

2. **Checking shipments.**—Cement shipments under Reclamation Service contracts are made under the supervision of a representative of the service at the plant, a part of whose duties it is to check the count of sacks in each car and seal cars with U. S. R. S. seals. The chief of construction should be notified of any cars arriving at destination unsealed. He should also be notified of any shortage in count of sacks which may be found after same has been carefully checked on arrival at destination. The cement company should also be notified of such shortage in each car shipped on the cards provided for this purpose.

3. **Sacks, care and return of.**—The cement contracts of the Reclamation Service provide for a refund to the Government by the manufacturer for each sack returned in serviceable condition. Record should be kept of each sack furnished under such contracts, in order that proper accounting may be made. Precautions should be taken to prevent careless handling of sacks. They should not be used for any purpose after emptying if they are to be returned, and when empty they should be well shaken and stored in a place where they will be properly protected, awaiting the accumulation of a sufficient number to justify their return to the manufacturers. Contractors receiving cement in sacks from the United States for use in their work should be advised in writing that for every sack not returned in serviceable condition they will be charged an amount equal to that paid the contractor by the United States for such sacks. Consignments of sacks received from contractors should be at once examined and checked with the record of cement furnished and the contractor should be advised in writing of any charge to be made on account of

sacks lost or returned in bad condition. Sacks so charged on account of bad condition should be held available for examination until the charge has been properly adjusted. As soon as possible after the last delivery of cement under a contract, all sacks in serviceable condition should be securely tied in bundles or bales, in accordance with the shipping requirements of the railroads, and returned by freight to the manufacturer at the shipping point mentioned in the contract. The bundles or bales should be marked by tags of strong texture securely attached, plainly addressed, and showing the number of sacks in the bundle. Information concerning the number, condition, and shipment of sacks should be sent to the chief of construction. Manufacturers have complained that sacks of other companies have been returned to them and that many sacks were returned in bad condition. In order to obviate disagreements on this ground, all shipments of sacks should be carefully checked and inspected before being returned to the manufacturer to determine the ownership and serviceability of the sacks, and record should be kept of the result.

4. **Sacks, serviceability of.**—The cement contracts of the Reclamation Service require that cement shall be delivered in serviceable sacks in good condition. It is believed that if a shipment of cement is subject to no unusual condition during transportation the fact that sacks are in poor condition when delivered from the cars will be conclusive proof that they were not in good condition when loaded on the cars. The determination of the question of serviceability of the sacks when received by the United States and when returned to the contractors is one which must of necessity rest largely on the discretion of the officers by whom the determination is made. No fixed test of serviceability has been determined upon. It is believed that the present system will be satisfactory in its results if the engineers will be careful in all cases to make reasonable allowance for all conditions which may have affected the condition of the sacks. Where there are reasonable grounds for suspecting that sacks which can not be returned in good condition were subject to any unusual strain or rough usage after delivery at the contractor's shipping point, the doubt should be resolved in the contractor's favor.

5. **Payment for damaged cement and sacks.**—It is assumed that no payment will be made for cement received at destination in damaged condition unless circumstances indicate that the damage occurred after the delivery of the cement at shipping point under the contract. If the damage occurred in transit, payment will be made for the cement and the sack account handled in the usual way, the cost of the cement, and sacks also if injured, being collected from the agency responsible for the damage.

CONSTRUCTION.

1. **General interpretation of specifications.**—Whenever work is being done for the service by contractors under formal specifications, the officer in charge should see that all requirements of the specifications are strictly and honestly executed. The specifications usually leave the officer ample discretion as to the manner and methods of conducting the work, but in exercising such discretion violation of specification requirements should not be permitted. Any deviations from the requirements of the specifications should be fully explained and recorded in writing, as required by the paragraph in the general conditions entitled "Changes at contractor's request."

2. **Estimates of work done.**—In estimating classified material, whenever possible the different classes should be measured before removal. Estimating classified materials by digging in sides of canals after completion should be avoided. In cases where it is impossible at the time of preparing the estimates to determine whether a particular piece of work should be classified under one or the other of two or more similar items of the schedule of unequal price, the work should be classified under the item of least unit price until final determination of its classification is made. In case a contractor desires to substitute borrowed material for overhaul contemplated in the contract, he should be permitted to do so only on written request and with the full understanding that the work will be estimated for payment on the basis of the estimated economic overhaul. Quantities of excavation, construction, etc., in claims or vouchers must always be checked by at least two persons and should be compared with the original estimates, which have been made independently. The officer certifying to the claim or voucher for payment should have before him in parallel columns the original figures made before the work was begun and the final measurements, so that in case of discrepancy he may look into the matter and make proper explanation.

3. **Inspection.**—(a) In directing the work of contractors the officer in charge should assign efficient inspectors to look after the different parts of the work. These inspectors shall oversee the work while it is in progress and require the materials supplied, the work done, and the methods of work used by the contractor to be in full conformity with the provisions of the specifications and plans. Inspectors should study the specifications and plans until they are thoroughly familiar with their requirements. Before making a complaint the

inspector should be certain that it is justified, and after making a complaint it should be promptly followed up to see that the error involved is corrected. If the defective work or method is not remedied within a reasonable time, the inspector should report full particulars of the case to the officer in charge.

(b) Construction by Government forces should be subject to the same thorough inspection that is required on contract work. It is generally advisable to prepare written specifications for such work, and in each particular case the project manager should determine what inspection is necessary to insure the proper execution of the work.

(c) Mill and shop inspection of materials, machinery, etc., on engineering contracts will be provided through the Denver office. When such inspection is desired on field contracts, the Denver office should be so informed at the time the contract is awarded and provided with triplicate copies of the contract in order that proper arrangements can be made for such inspection. Dimensions and quantities of all specially constructed machinery should be checked immediately upon receipt and before machinery is hauled to the work. Any errors found should be immediately reported to the chief of construction.

4. **Inspectors' daily reports.**—On all construction work the officer in charge should require from the inspectors some form of daily record or report, giving progress of the work, comments on its condition, and copies of all instructions given to the contractors. The precise form of these reports or the method of preserving them is not as important as it is that some simple system be followed which records daily the facts of importance in construction, especially in view of possible disputes or legal controversies. (See Diary.)

5. **Instructions to contractors.**—All directions to a contractor as to the conduct of his work which may in any way cause a change in payments from those specifically included in the schedule of prices, or which may authorize a method of work at variance with the provisions of the specifications, or have a tendency to modify the specific provisions of the contract, or which are explanatory of doubtful points in the specifications, must be in writing. One copy must be retained by the officer issuing the instructions and other copies must be promptly forwarded to the Denver and Washington offices for information and for safe-keeping in order that they may be available if the officer's copy should be lost or destroyed. In giving instructions to contractors, no attempt should be made to prescribe details as to the manner of conducting the work. In all cases, instructions to the contractor should be as to the results to be accomplished, leaving him to handle the work at his own risk and committing the Government to responsibility only as to the results demanded.

6. **Statements to contractors regarding their work.**—In discussing matters with contractors in connection with their work, whether orally or in writing, the officer should confine himself exclusively to facts and conclusions without undertaking to show the reasons upon which the conclusions are based. Cases have arisen where officers have unintentionally made statements that commit them and may tend to commit the service to a line of action which is not to its best interests. In order that the contractors who present claims may be dealt with in the utmost fairness it is desirable that all reports of the officers upon their claims should be given to them for consideration. It is accordingly necessary that all such reports should be confined to statements of fact and should not contain discussion of the terms of the contract or their application to the facts in the case. These usually involve questions of law and if the view of the law taken by the officer is incorrect, his conclusions are naturally rejected by the courts, whereas his conclusions might readily be sustained by a different line of reasoning. The officers should make recommendations on the claims in separate letters which may be considered by the chief engineer in rendering his decision. Officers must remember that all their conversations with contractors and all letters written to them may form the subject of controversy in court and it is essential that they do not commit themselves upon points not strictly engineering in character. Anything which is of a legal nature should not be discussed by them with the contractors, and all letters or instructions should deal only with facts and statements strictly within the province of the officer under the terms of the specifications. (See Contracts, par. 34.)

7. **Records.**—The books required for recording construction data are independent of those pertaining to preliminary and location surveys (see Survey notes and note books, p. 184), and, exclusive of the cost-keeping records, should consist of a transit book, a level book, a profile book, a cross-section book, a classification cross-section book, a structure book, an estimate book and a diary. (See also Diary.) These books properly marked for identification should all be filed in the project office as soon as the work to which they relate is completed.

(a) *Transit book.*—The transit book should contain all alignment notes, reference points and the like taken during and pertaining to the construction.

(b) *Level book.*—The level book should contain all level notes taken during and pertaining to the construction, and for the sake of convenience, records of permanent and temporary bench marks established during location and construction.

(c) *Cross-section book.*—The cross-section book should contain all notes pertaining to the cross-sectioning of the canal as determined from the topographic sheets and the field location of the cross-section

stakes. Cross-section areas upon which final estimates are based should be computed where possible and not determined by graphic methods, although the latter method is valuable for preliminary and monthly progress estimates and as a check on computed quantities.

(d) *Classification cross-section book*.—A classification cross-section book should be made up in the field office from the original canal cross-section book. As soon as classified material is developed during the excavation, classification lines should be drawn. Opposite each plotted cross-section should be placed the area of each class of material, and between these areas should appear the corresponding volume between stations. At the end of each mile or important cut or fill a summary should be compiled indicating the total quantity of each class of material contained therein.

(e) *Profile book*.—The profile book should be kept on all large and important canals and should contain all data necessary for the conduct of the field work, as well as all of the results of construction. It should therefore include the following information: Location of mile posts; location of reference points with distances and angles; grades; elevations at points where grades change; classification lines in cuts; direction and amount of material moved, both in actual excavation of the canal and from borrow pits; elevation of bench marks; alignment, including the degree, central angle, point of curve, point of tangent, and the direction of curves, whether right or left; division of haul; mass curves showing economical movement of material and amount and distance of overhaul; the dates cuts or fills are begun and completed and by whom; the final classification and quantities for each embankment or cut; the summary of pay quantities for each mile; and the location and kind of structures. In connection with this record a progress profile should be kept indicating graphically the progress of construction along the entire line for each month, using the following standard colors to record the time of execution of work: January, terre verte; February, burnt umber; March, chrome yellow; April, Payne's gray; May, scarlet lake; June, Hooker's green No. 2; July, cobalt blue; August, cadmium orange; September, Indian red; October, emerald green; November, Prussian blue; December, vermilion.

(f) *Structure book*.—The structure book should contain all notes pertaining to bridges, culverts, turnouts, flumes, siphons, drops, sluiceways, etc. The general plans of the structure should be drawn on the left side of the book, followed on the right side by the level notes of the original surface of the ground and a record of the excavation. The plans, in detail, as constructed, should be plotted in this book, and areas and volumes there indicated. In general, sufficient dimensions should be given to enable the quantities to be checked. Great care should be taken to note the character of the material on

which the structures are founded. These plans should be colored when practicable with the monthly progress colors used for the progress profile.

(g) *Estimate book*.—A separate set of books should be kept exclusively for monthly estimate notes. Especial care should be taken to keep these books in good form and in such condition that the old work may be reviewed without difficulty. The classification of material should in all cases be carefully recorded in this book.

(h) *Diary*.—A diary as described under Diary, page 157, should be kept by all officers in responsible charge of construction work.

DESIGNS.

1. **Standard designs.**—The designing division of the Denver office prepares standard designs of minor structures and metal work common to all projects. These designs are printed and distributed to the projects from time to time as completed and extra copies are available from the Washington office. So far as possible these standard designs are adaptable to the conditions existing on any project and, in general, they should be used without modification. If modifications are necessary to adapt the standard designs to unusual conditions, these modifications should be carefully made and the necessity therefor should be fully stated when the designs are submitted for approval.

2. **Designs prepared in project offices.**—Designing work performed in the project offices shall be limited to work that can be performed by the force required for other engineering and construction work. Designs that can not be made by this force without interference with their routine duties shall be prepared in the Denver office except when authority may be granted by the chief of construction for special designing work in the field.

3. **Designs prepared in the Denver office.**—A competent designing force is maintained in the Denver office and all important designs shall, in so far as practicable, be prepared by this force. The project officers are expected to make the greatest possible use of the designing force and technical facilities in the Denver office not only for the preparation of designs but for advice relative to engineering subjects requiring access to books and periodicals not available at the project offices. The Denver office has an extensive library of technical books, engineering periodicals, and trade catalogues and is prepared to do research work and furnish information for the assistance of project officials.

4. **Data sheets for designs.**—Data sheets for the use of the project offices in transmitting data for the design of structures have been issued as printed forms and are available from the Washington office covering the following more common structures:

Check.
Chute.
Culvert under canal.
Culvert under railroad.
Culvert under road.
Diversion dam.
Drop.
Farm turnout.

Flume.
Head gates at diversion dam.
Highway bridge.
Lateral turnout.
Siphon.
Siphon spillway.
Tunnel.
Wasteway.

All requests on the Denver office for designs should be accompanied by the proper data sheets completely filled out. These sheets should also accompany designs prepared by the project and forwarded to the Denver office for approval.

5. **Designs approved by the chief of construction.**—All designs prepared on the projects shall be examined and checked in detail in the Denver office and approved by the chief of construction. If necessary, drawings will be returned to the project office for revision or they will be revised in the Denver office. When the cost of the construction work involved is less than \$500 or when standard designs issued by the Denver office are used without modification, no further approval need be obtained. Drawings submitted for approval shall be accompanied by complete data as to the functions of the structure, so that an intelligent study can be made of its efficiency and economy and to enable constructive criticism to be offered. To insure that such data be complete, the printed data sheets that have been issued shall be filled out in full and forwarded with each design prepared in the project office. Tracings should not be forwarded to the Denver office except when they are to be printed, but two blue prints should be furnished. One of these will be returned with the approval of the chief of construction noted thereon, which approval should be transferred to the tracing before further prints are made. If the design is not approved as submitted, one marked print will be returned with a letter of explanation.

6. **Designs approved by the chief engineer.**—Plans for individual structures estimated to cost over \$50,000 and for other structures which have unusual features connected therewith shall, after approval by the chief of construction, be approved by the chief engineer. Such plans shall be transmitted for his approval well in advance of the time for beginning of construction so as to enable the necessary consideration to be given thereto.

7. **Stress computation sheets.**—It is desirable to preserve a complete record of the engineering elements of each project, such as estimated cost, actual cost, specifications, plans, and stress analyses of structures. Stress diagrams and computation sheets need not accompany the plans submitted to the Washington office for approval except in the case of structures of exceptional importance or unusual design. Although the methods of computation and compilation are not limited, information concerning the nature, dimensions, loadings, and stresses of the members of structures should be collected into systematic form under appropriate headings so that it may be intelligently followed with a minimum expenditure of time, and should then be filed in the project office as part of the history of the structure to which it pertains. The unit working stresses used in the computations should invariably be stated on the computation sheets.

8. **Form of computation sheets.**—All computations should be made in books (Form 7-539) or on sheets of regular letter size for convenience in filing and so that the data may be collected and bound in a volume. In case of revision of computations do not destroy the old sheets but mark them "superseded" and give references to the revised computations.

DIARY.

A diary of current events must be kept on all projects and in all separate offices in projects whether under construction or not. Where construction is under way the diary should contain a brief statement of all the important conversations with contractors and should include a synopsis of all orders and letters relative to the work. It should contain the dates of beginning and completion of the work and the time and the cause of all delays. There should also be notes relative to the classification of material and the building of structures, the equipment with which the contractors do the work, and such other matters pertaining thereto as may be of interest and value. The visits of strangers should be noted and the conditions of the weather and the engineering work carried on during the day should be stated in concise form. The diary should form a continuous official record. In addition to the official project diary above described, official diaries should be kept by all engineers in charge of construction, inspectors, and others in charge of important field or office work.

DRAINAGE ENGINEERING.

When there is apparent need of drainage the project manager should call it to the attention of the chief of construction, who will authorize such studies and investigations as may seem necessary. A drainage engineer is connected with the office of the chief of construction, who is available to advise the officers of the service on drainage matters.

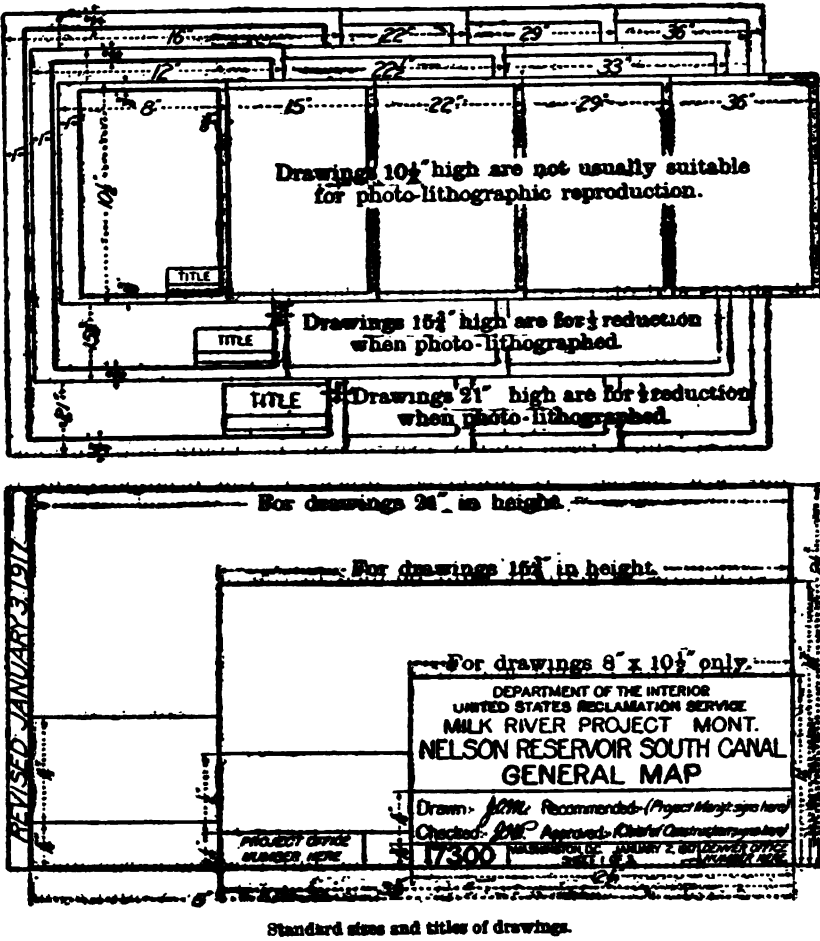
DRAWINGS, MAPS, PRINTS, ETC.

(Also see Designs.)

1. **Transmission and reproduction.**—On completion at the local offices, maps and drawings of a permanent character, such as plane-table sheets and other original maps of canal, reservoir, dam site, and irrigable land surveys should be immediately sent to the Washington office where they will be recorded and photographed or otherwise reproduced if copies are required. The originals will be returned to the local offices and paper negatives thereof will be filed in the Washington office from which prints can be made and supplied as they are needed. If preferred, however, the originals will be retained in the Washington office and paper negatives or prints sent to the local offices. It is an imperative requirement that final plans of all structures as actually built be filed in the project office. It is also essential that a complete set of drawings for each of the more important structures as actually constructed or under construction be on file in the Denver and Washington offices.

2. **Drawings, standard sizes and titles.**—For uniformity and convenience of filing, it is desirable that drawings should conform to definite standards. The accompanying drawings show the standard sizes and titles that are to be used in all offices of the Reclamation Service for construction drawings. For maps the same standards should be adhered to whenever possible, but the standards may be deviated from if necessary. The initials of the designer and checker must appear on all drawings and drawings prepared in project offices must be signed in the blank marked "Recommended" by the project manager or construction engineer, as the case may be and in the blank marked "Approved" by the chief of construction or chief engineer. The standard height of all reduced drawings accompanying printed specifications is 10½ inches and it is necessary that the lettering including the title be of such size and clearness as to be legible after reduction.

The most convenient and economical form of drawing for reproduction in specifications is one which will make a single page after one-third or one-half reduction. This saves the time and expense of folding, both important items in publishing a large set of drawings. The sizes 12 by 15½ inches and 16 by 21 inches are adaptable to a single page reduction and may be made to read either with longer dimension vertical, or with longer dimension horizontal.



3. Lettering.—

(a) STRUCTURAL DRAWINGS.

GOTHIC ITALIC lettering should be used on all structural and mechanical drawings. Capitals for special emphasis and titles; lower case for general description and notes.

GOTHIC CAPITALS are used for titles on published drawings.

(b) MAPS.

ROMAN CAPITALS are used for map titles and for names of States, counties, townships, reservations, capitals, cities, and all civil divisions.

Lower Case Roman is used for towns, villages, settlements, etc.
ITALIC CAPITALS are used for large lakes and rivers.

CONVENTIONAL SIGNS FOR IRRIGATION STRUCTURES

DAM	
DIVERSION DAM OR WEIR	
HEADWORKS	
TUNNEL	
BRIDGE	
SPILLWAY	
DRAINAGE CULVERT UNDER CANAL	
BOX OR PIPE CULVERT UNDER ROAD	
FLUME	
CHECK OR DROP	
SIPHON OR COVERED CONDUIT	
SLUICeway	
TURNOUT	
TELEPHONES	
TELEPHONE LINE	
TRANSMISSION LINE	

Lower case italics are used for all other drainage such as creeks, small lakes, and streams.

GOTHIC ITALIC CAPITALS are used for canals, reservoirs, railroads, and other public works.

GOTHIC CAPITALS are used for topographic features such as mountains, canyons, mesas, etc.

All lettering should be plain, open, and clear; not ornate, heavily inked, or closely spaced. The general height of lower case letters throughout the drawings should be not less than one-tenth of an inch. Letters of this size reproduce clearly and are legible when reduced one-half or less. When a greater reduction than one-half is planned, the lettering should be proportionately larger but never more than one-eighth of an inch in height except for subtitles or headings of tables. When lettering can not be placed to read horizontally with the drawing, it should be placed to read from the right side.

4. **Symbols.**—The symbols shown on the preceding page represent irrigation structures commonly encountered in drafting-room practice. Other symbols used for map work are shown on sheets published by the United States Geological Survey, designated as "Conventional Signs Adopted by the United States Geographic Board" and "Lettering and Conventional Signs." These sheets may be obtained through the director's office.

5. **Reproduction in colors.**—When the use of distinctive colors is required in order to add to the legibility of a map, plat, diagram, or other drawing intended for publication, the preparation of the finished tracings or drawings representing the different colors will be done in the Washington office. Therefore no special provision need be made on the originals except to indicate the colors desired. Changes may be made in these colors in the interest of economical printing, but their distinctive character will be preserved.

6. **Preparation of contract drawings.**—(a) In preparing drawings for reduction the draftsman should constantly bear in mind that the weight of lines and size of lettering will be reduced in the same ratio as the dimensions of the drawing. (b) Black ink only should be used on drawings for photographic reproduction. (c) Bar scales should always be shown on drawings which are to be reduced. (d) Titles should give the department, bureau, project, unit if appropriate, feature, subject of drawing, project manager's signature and project office number if prepared in the project office, initials of designer and checker, sheet number, and date. If revised, the date of revision should be placed in a vertical line at left of title. The names of department and bureau should appear in letters of the same size. (See p. 160). (e) Vertical sections and elevations taken across a stream or canal should be shown looking downstream. Stationing of profiles should increase from left to right and should increase downstream

for irrigation canals and upstream for drainage ditches. (f) Maps should show the direction of the meridian, and all legal subdivisions or coordinate lines should be referred to fixed and readily-identified points, as section or quarter-section corners. (g) Drawings for reproduction may be made on tracing cloth, white paper, profile paper, cross-section paper, etc. Superfluous lines on profile and cross-section paper can be eliminated in reproduction. When profile tracing cloth is used for drawings intended for reproduction, the side on which the cross-section lines are printed should be used, as it is difficult to get good results when the drawing is done on the reverse side. For blue printing it is immaterial which side is used. (h) Better photolithographs are obtained from drawings that are made large enough to allow for reduction than from those drawn the size of publication. (i) In the preparation of a set of contract drawings where it is necessary to have some bound in from the top and others from the side and the particular order is not important, an effort should be made to group the drawings so that all those to be read with the pamphlet turned sideways will be together, so that they can be consulted conveniently.

7. **Record drawings.**—Upon completion of every large or important structure and separately constructed portion of a canal system a record drawing or set of drawings should be prepared showing the work exactly as constructed and bearing explanatory notes regarding changes made in the original plans where such changes may not be readily noted or understood. The originals of these drawings should be kept in the project office and blue-print copies sent to the Denver and Washington offices. Such drawings are indispensable in these offices for the intelligent consideration of changes which may be proposed from time to time, as well as for reference in case of controversy with contractors. In cases where copies of these drawings on reduced scale would be useful for future correspondence and reports it is advisable to send the original tracings to the Washington office for photolithographic reproduction, with a statement of the number of copies desired. There is a considerable demand for drawings of all our large structures, particularly dams, and these requests can be readily met by such lithographic copies.

8. **Maps and drawings, sale of.**—Published maps, farm unit plate, etc., may be disposed of at the estimated cost of printing and handling as determined by the director. All finished maps and profiles that are not published and which show physical conditions may be reproduced and copies disposed of to persons who desire them at the estimated cost of reproduction and handling as determined by the director.

ELECTRICAL AND MECHANICAL ENGINEERING.

An electrical and mechanical engineering department is maintained in the office of the chief of construction. It is the function of this department to design and prepare specifications for all electrical and mechanical installations, to supervise the installation and operation of all permanent power and pumping plants and incidental commercial power operations, and to render all possible assistance to the other departments in matters within its scope.

EXPERIMENTAL INVESTIGATIONS.

The service has adopted the policy of keeping a record of all experimental investigations and project managers are expected to foster the making of experiments that are of value to the project and the service in general and to take a personal interest therein. The many large and diversified structures that are available for experimentation offer exceptional advantages for the collection of data relative to their hydraulic and structural performance and efficiency, and such data are of great value in connection with further design and construction. It is important that of each set of experiments a report be rendered immediately after the data have been worked up, so that they may be passed upon and if approved, published in the form of cards for distribution among the engineers of the service. These cards give due credit to the engineers who have done the underlying work of experimentation. The summary of the year's work should be collected in an annual report to be prepared by each project manager and addressed to the chief of construction, to arrive in Denver before December 31 of each year. When reports of investigations are of special value to the engineering profession or of general interest to water users, or where they involve descriptive matter not readily summarized in diagrammatic or tabular form on the data cards, brief articles are desired for publication in the Reclamation Record, under the head of "Engineering Investigations."

SPECIFICATIONS.

1. **To be submitted to Washington office.**—All specifications for construction work or for furnishing engineering equipment and machinery, the estimated value of which in either case exceeds \$50,000 and also all specifications which involve novel features differing from standards in use shall be submitted to the Washington office for approval and authority before being issued.

2. **Not to be submitted to Washington office.**—Specifications for contracts the value of which does not exceed \$50,000 and which do not involve novel features differing from the standards in use may, when advisable or expedient, be issued by the chief of construction or other field officers authorized by him to do so. When so issued, the advertisement should, in every case, be signed by the person issuing the specifications. Copies of such specifications should be immediately forwarded to the Washington office and also to the Denver office when prepared in other field offices. When recommendation is made for award of contract to be executed by the Washington office under specifications issued in the field, such recommendations should be accompanied by at least eight copies of the specifications for each contract to be awarded.

3. **To be submitted to the Denver office.**—All specifications originating in the field for construction work or for furnishing engineering materials, machinery, or equipment, having an estimated value of more than \$1,000; also all specifications for work involving special or unusual features shall be submitted to the chief of construction for approval and authority before being issued. Copy of all such specifications shall be forwarded to the Washington office as soon as issued in order that the office may be fully advised concerning advertisements that have been issued in the field, as such information is frequently in demand.

4. **Expenditures to be authorized.**—It is necessary, before issuing specifications, that the expenditure involved therein be authorized by the chief of construction. Unless the work has been previously authorized, the specifications should be accompanied by request for authority on Form 7-681.

5. **Transmission of.**—In transmitting drafts of specifications to the Denver and Washington offices, a detailed estimate of the cost should be submitted and a recommendation made whether the specifications are to be issued from the field office or from Washington, and also

whether or not newspaper or technical journal advertising is desired. Unless otherwise recommended, specifications will be printed and advertisement issued by the Washington office through the usual channels. When specifications are to be printed, three copies thereof are required, one being for the printer and the other two for the files of the Washington and Denver offices, respectively. The two file copies should have the engineer's estimate inserted in the schedules. A statement should be submitted covering the status of rights of way involved in the work to be done and a statement covering the availability of funds and the authority for expending same.

6. **Standard forms to be followed.**—In the preparation of specifications, the standard specifications that have been issued should be consulted and carefully followed wherever applicable. Specifications should be drawn in accordance with the latest available set of printed specifications, advertisement, notice to bidders, and proposals issued from the Washington office, unless they are manifestly of a special character. Ordinarily the published specifications have been conformed to departmental rulings and other requirements.

7. **Printing of.**—As a general rule all specifications should be forwarded to the Washington office for printing when the cost of such procedure is not excessive and the delay incident thereto will not have a detrimental effect on the work to be done. In all cases where the estimated value of the contract exceeds \$10,000, or where 50 or more copies of specifications without drawings are required, the specifications shall be printed; and in all cases where 20 or more copies are required and the accompanying drawings exceed a total area of 10 square feet per copy, the specifications and drawings shall be printed. The time required to print specifications and drawings in the Washington office is normally about 10 days when the work has been previously approved and when no correspondence with the field is required.

8. **Modification in.**—Where modifications in specifications are necessary, subsequent to the issuance of advertisement and prior to the award and execution of contract, because of material changes in the requirements, or material increase or diminution in quantity, all proposals received in response to the original advertisement should be rejected and a new advertisement issued to afford all bidders equal opportunity of submitting bids under the modified conditions and to secure full compliance with the law regarding competition.

STREAM GAGING.

1. **Agreement with Geological Survey.**—By an agreement between the Reclamation Service and the Geological Survey for stream gaging work, approved December 17, 1909, the Geological Survey shall maintain all river gaging stations requested by the Reclamation Service and shall make such special gagings and studies as from time to time may be found necessary or desirable by the Reclamation Service, and the Reclamation Service shall pay to the Geological Survey, by transfer in the Treasury of the United States to the appropriation for "United States Geological Survey, gaging streams," a sum equivalent to the actual cost of said gagings to the Geological Survey; bills for said work shall be presented by the Geological Survey and payment therefor shall issue as aforesaid as soon thereafter as suitable audit and approval can be effected; the charges made by the Geological Survey shall not include any item for expenses of administration in the Washington office, but shall be confined to productive charges made necessary in the gagings and computations involved in the ascertainment of stream flow. Notification to the Geological Survey that stream gagings are desired for the Reclamation Service at any designated point shall consist of formal request made by the director or chief of construction of the Reclamation Service to the director or any district engineer of the Geological Survey, provided that such formal request by the chief of construction to a district engineer shall in all cases be subject to subsequent confirmation by the director of the Reclamation Service; but the procuring of such confirmation shall not in case of emergency delay the performance of the work requested, but said district engineer shall proceed therewith as though the request had been approved. The Geological Survey shall furnish to the Reclamation Service the results of measurements made under the terms of this agreement as soon as practicable, and prior to publication, or as demanded by the Reclamation Service; and also, when requested, the weekly gage readings, due consideration being given in all cases to the time necessary to prepare such data or to make the computations and confirm the results. When the Reclamation Service shall demand such results out of regular order, or at times or in ways compliance with which shall involve extra expenditure by the Geological Survey, such expenditure shall be included in the accounts rendered for such work. The results of river gagings procured under the terms of this agreement shall be

published by the Geological Survey in the annual progress reports of stream measurements, credit being given to the Reclamation Service for its participation therein; and the Geological Survey further agrees to publish in said annual progress reports such results of gagings made independently by the Reclamation Service as the director of the Geological Survey may deem advisable.

2. **Preparation of vouchers.**—The Geological Survey will submit all bills for stream gaging work direct to projects. These accounts, if correct, should be prepared for payment on claim voucher (Form 7-422) with sufficient copies on Form 7-423 for the project office, the office of the Director of the Geological Survey, and for the Washington office of the Reclamation Service. The claim, after preparation and certification by the project manager, should be forwarded to the Geological Survey representative for approval and transmission through the Washington office of the Survey to the Washington office of the Reclamation Service for approval and settlement. A memorandum copy of the claim should be transmitted direct to the Washington office of the Reclamation Service, with a statement that the original claim has been forwarded through the Geological Survey, giving the name of the officer to whom sent and the date forwarded.

3. **Publication of data.**—It is desired that all stream-measurement records made by the Reclamation Service, suitable for publication, be forwarded at the close of each stream gaging year to the district engineer of the United States Geological Survey in charge of the district in which the measurements were made. A letter giving the date of transmittal and list of records should be forwarded to the Washington office. Copies of the records for the calendar year should be included in the annual project history.

SURVEYS.

(See also Farm unit plats; Townsites.)

1. **Preliminary investigations.**—Before undertaking the regular preliminary surveys for a proposed project a careful reconnaissance should be made to ascertain in a general way the conditions governing water supply, the feasibility of the various possible reservoir and dam sites, the area and character of lands available for irrigation, and the relative merits of various points of diversion and possible main canal locations. The determination of the suitability of a reservoir site as to storage capacity and dam construction can, in many cases, be accomplished with a hand level. In other cases a rough transit and stadia reconnaissance is necessary. The examination of irrigable area will ordinarily be made without instrument work, reliance being placed upon the judgment and experienced eye of the engineer, supplemented by previous surveys or maps when such are available; the object being to ascertain in a very rough way if there is a sufficient body of irrigable land to keep the cost per acre within reasonable limits and to justify taking up a thorough survey. The examination of diversion sites and canal locations will be made for the purpose of eliminating suggested locations and routes which may prove impracticable and which might otherwise involve considerable expense for useless surveys before discovery of the unsuitable features. A hand level is usually sufficient for this work.

RESERVOIR SURVEYS.

2. **Accuracy of surveys.**—The survey of a reservoir site should be made with sufficient accuracy to determine the approximate capacity of the reservoir and volume of the dam within a limiting error of 10 per cent.

3. **Bench marks.**—Two or more permanent bench marks shall be established near the proposed dam site, and the elevation thereof determined with reference to the river bed or water level. Wherever practicable a bench mark should be connected by a checked line of levels with a permanent Government bench mark of known elevation above mean sea level. The bench marks established should be carefully recorded in a bench-mark book and appropriately illustrated with a sketch.

4. **Topography with planetable.**—A line of levels shall be run up the valley of the reservoir, stakes being driven and flags erected at every point where a contour crosses the line. A base line of such length and so located that a well-conditioned triangulation may be expanded from it shall be measured in duplicate by a steel tape, and from this base line a careful planetable triangulation shall be executed. Before completing the triangulation, triangulation stations shall be marked by permanent monuments of stone or concrete. Where the reservoir site, on the scale adopted, covers more than three consecutive planetable sheets, all the angles of the triangulation system shall be measured by a transit or theodolite reading to 20 or 30 seconds, and the relative positions of the stations shall be computed and plotted on the planetable sheets before beginning the planetable survey. Secondary points for the control of the sketching shall be located by the stadia method. Hills, buildings, lone trees, or other recognizable objects shall be utilized as far as available and located by intersection. Secondary points should be skillfully distributed so as to establish controlling points in the topography, such as change of slope, important junctions or bends in drainage lines, hills, passes, etc. A careful search should be made for public land survey corners, and all those found should be located accurately on the planetable sheets.

5. **Topography with transit.**—Where the reservoir site is so densely wooded as to prohibit absolutely any field sketching and to necessitate the cutting of lines for all sights and the locating of a very large number of points to establish the contours, the transit and stadia method should be used. Generally a traverse line should be run up the valley of the reservoir site and another along the top contour of the survey. Where the site is not too large, points on these lines may be connected by traverse lines, differences of elevation being obtained by the hand level and distances determined by pacing; but where the reservoir is large it will be necessary to run these traverse lines by transit and stadia.

6. **Scales for reservoir sites.**—Four hundred feet to the inch shall be used as the standard scale for plotting surveys of reservoir sites that can with this scale be plotted on one planetable sheet. The contour interval should ordinarily be 10 feet though in exceedingly steep country it may be increased to 20 feet where this interval will correctly portray the topography. One thousand feet to the inch shall be used as the standard scale for plotting reservoir sites that can not be plotted on a single planetable sheet on a scale of 400 feet to the inch.

7. **Scales for dam sites.**—Forty feet to the inch shall be used as the standard scale for plotting surveys of dam sites. Where the plotted survey of a site would occupy more than one entire planetable sheet on this scale and where the detail of the topography is not

great a scale of 100 feet to the inch may be used. The contour interval should ordinarily be 5 feet, a smaller interval being employed for comparatively level ground.

CANAL SURVEYS.

8. **Location.**—After the general route of a canal has been determined upon by reconnaissance, an approximate location should be made by the transit-stadia method, a line of levels being carried by means of the transit and adjacent desired elevations obtained by means of vertical angles and stadia distances. Following this approximate location of the canal line, the leveling party should run a line on the proposed canal grade, setting stakes from 300 to 400 feet apart without measurement of distances and marking them with consecutive numbers and elevations. These stakes should then be located with transit and stadia by using the azimuth-distance method. The transit notes thus obtained should be plotted as the work progresses, generally on a scale of 100 feet to the inch in rough country or 400 feet to the inch in gently rolling country, on a long roll of detail drawing paper, with the aid of tables of tangents or latitudes and departures. These plotted locations of the canal stakes should then be transferred to planetable sheets and marked with the consecutive stake numbers and the proper elevations. The topography should then be mapped in the field on the planetable sheets with alidade and stadia for a distance of from 300 to 500 feet on each side of the canal line. The planetable sheets should overlap an inch or two at the most convenient angle so that the line and topography may be continued when the sheets are superimposed in their proper order. From these planetable sheets, after determining the velocities of flow adaptable to the soil and the discharge capacities required by the scheme of distribution, a paper location of the canal may be made and the canal line then actually run out on the ground with a transit locating the tangents and curves and setting appropriately numbered station stakes. A profile of the line should then be made and the line revised to fit the ground more closely and balance the work. To preserve the center line a small pony peg or hub should be driven flush with the ground surface at each station and a stake marked in the ordinary manner should be driven beside it in line as a marker. Before construction work is begun, all P. C.'s, P. T.'s and other points which it may be necessary to reestablish later should be accurately referenced to hubs so located that they can be carefully guarded during the construction period.

9. **Bench marks.**—Permanent bench-mark posts should be established on preliminary lines of survey at intervals not exceeding 4 miles and on located lines not exceeding 1 mile. Wherever practicable, they should be referred to standard datum. Temporary

bench marks should be established not more than a mile apart in open country and every 1,000 feet in rough or broken country. Connections should be made as often as possible with the located corners of the public land survey. The error of closure in the level work shall not exceed $0.05\sqrt{D}$ in which D is the length of circuit in miles.

10. **Observations for azimuth.**—Observations on Polaris should occasionally be made as the survey progresses for checking the azimuth of the line. These observations should be made at a station on the line.

11. **Variation in methods.**—The conditions surrounding the survey of a particular canal may be such as to make part of the foregoing methods of procedure inadvisable. In such case, the engineer should conduct the work in the manner best suited therefor.

IRRIGABLE LAND SURVEYS.

12. **General method of survey.**—The first step to be taken in making irrigable land surveys is to retrace all existing township and section lines and locate each section and quarter corner. If after a reasonable amount of search and investigation it is evident that the original corner has been obliterated and can not be otherwise established, a relocation should be made in accordance with instructions in the manual of the General Land Office and the pamphlet entitled "Restoration of Lost and Obliterated Corners and Subdivision of Sections". This should be followed by the establishment of the level control which should in general consist of bench marks established at every section corner. With the foregoing horizontal and vertical control established, the topography may be developed by plane-table and stadia or transit and stadia. The former is the more common method and generally preferable. In taking topography, the number of elevations, length of sights, and amount of detail shown will depend upon local conditions and requirements. It should, however, be remembered that these maps will be used for many purposes, the principal ones being the determination of the irrigable area in each farm unit, the preliminary location of laterals and sublaterals, drainage studies, and general operation and maintenance purposes and all the uses to which the maps are to be put should be given due weight in their preparation. This also makes it advisable to plat only one section on each sheet, and this plan should be followed unless there are important reasons why more than one section should be plotted on a single sheet.

13. **Scales.**—The horizontal scale of the maps should be not more than 400 feet to the inch and larger scales should be used when the amount of detail necessary to be shown makes this advisable. The contour interval should be from 2 to 5 feet depending upon the

amount of relief. On comparatively level land the individual elevations should be preserved on the map. These elevations are especially valuable in depressions and along ridges.

14. **Classification of irrigable lands.**—Topographic maps of irrigable lands should show, in addition to the topography, a classification of the lands. Notes should be made of the character of the soil, vegetation, etc., including information as to the areas covered by timber, wood, and brush. Depth of soil should be noted if less than 4 feet, as shallow soil often makes proper leveling of the surface impracticable. With reference to irrigability, the land will be divided into two general classes, irrigable and nonirrigable. This can be best done on a piece of tracing cloth placed over the map and showing the public land subdivisions by 40-acre tracts or lots. Irrigable land will be classified as first, second, and third class. First and second class lands are both irrigable and agricultural, and third class land is irrigable, but not agricultural, owing to infertility or presence of excessive quantities of alkali or water. By nonirrigable land is meant land that is too high or too rocky or broken to permit of successful irrigation. On the tracing cloth the classification should be indicated in colors. The land under cultivation should be shown in its appropriate color with fine black lines drawn across it. In addition to the color sheet there should be detail notes kept, describing the soil, topography, and vegetation of the various subdivisions on the tracing, the subdivisions being referred to by numbers. All wells should be located and the distance to water from the surface of the ground noted.

LEVELING.

15. **Primary levels.**—The following rules for primary leveling should be closely adhered to: (a) No sight more than 300 feet in length should be taken, except under unavoidable circumstances. (b) Record distance in feet for both fore and back sights and keep them as nearly equal as possible. (c) Avoid lines of sight that are less than 2 feet from the ground surface at any point, particularly when the air is "boiling." (d) Levelmen and rodmen should keep their notes strictly independently and in such a manner that they will not turn the leaves of their note books at the same time. (e) Give complete information regarding source from which initial elevation was taken. (f) Establish bench marks for each mile run. Standard bench marks (posts and tablets) should not average more than 3 miles apart. (g) Be careful to use firm turning points. (h) All primary level circuits must close with an error not exceeding $0.05 \sqrt{D}$, where D is the length of circuit in miles.

16. **Secondary levels.**—On secondary or flying level lines, lengths of sights are not limited, turning pins are not required and every effort should be made to save time. Benches should be left at fre-

quent intervals and should be well described, but standard benchmark posts must not be established on such lines. Elevations of topographic control points along the line, such as road corners, summits, and depressions, bridges and water levels, should be determined and marked in some way so that they will be readily found and read by the topographer. No limit of error is prescribed for this work, the general understanding being that a closure within a fifth of the contour interval used is sufficient.

17. Triangulation.—Where it is necessary to measure the angles of a system of triangulation for the control of the topography of a large reservoir site or of a large area of irrigable land, and where the instrument used reads to 20 or 30 seconds, the following method is generally of sufficient accuracy, the signals being in the order A B C — A:

First set: Telescope direct—read on A B C — A.

Telescope reversed—read on A — O B A.

Shift the limb 90° .

Second set: Telescope reversed—read on A B C — A.

Telescope direct—read on A — C B A.

If more than two sets are necessary the limb should be shifted, between sets, 180° divided by the number of sets. In all cases read both verniers. Observations on Polaris for azimuth should be made at the beginning and end of the triangulation and the entire system should be properly adjusted. Each triangulation point should be permanently preserved by means of a stone or concrete monument.

INVESTIGATION OF MATERIAL AND FOUNDATIONS.

18. Investigation of material.—On all surveys of dam sites and of canal lines on which estimates are to be made care should be taken to ascertain the character of the material to be moved and to indicate upon the map the class under which it falls. So far as practicable the standard classification for excavation adopted by the service should be used.

19. Borings and test pits.—Borings and test pits should be made to determine the depth to bed rock or the character of foundation at proposed dam sites, and the character of material along proposed canal lines. Careful records should be kept of the material encountered in sinking pits and borings and samples should be collected and diamond drill cores saved. Each sample should be carefully marked with the depth from which it has been obtained, as well as with the location of the hole.

WITHDRAWAL AND CLASSIFICATION OF LANDS.

20. Reports on examination of projects.—On completion of the examination of a proposed irrigation project, complete recommendations relating to action to be taken in connection therewith should be made

to the director. If reservoir sites or the irrigation of lands have been considered feasible, all lands included therein should be recommended for preliminary withdrawal, the description thereof being given by entire townships if necessary. Lands for reservoir sites should be listed separately from irrigable lands. One of the most essential parts of the work of preliminary investigation for an irrigation project to be constructed under the reclamation act is to record and report the amounts of water diverted by the various ditches and reservoirs taking water from the proposed source of supply; also the maximum capacity of each of such ditches or reservoirs in use. Any information relating to legal decisions concerning water rights and the best sources of information concerning them will be of great value in subsequent investigations.

21. **Reports on lands required for reservoirs.**—As soon as the maximum elevations of the water surfaces of proposed reservoirs have been determined, the flow line should be located and connected where possible with the public land surveys, and the engineer should thereupon forward to the Washington office a list of the lands required by the reservoir and appurtenant structures, including such unflooded marginal strip as may be necessary, not less than 100 feet wide. A wider strip may be provided if necessary for the proper maintenance and protection of the reservoir and headworks.

22. **Reports on nonirrigable lands.**—When the irrigable lands have been determined by the survey, the engineer shall forward to the Washington office a list of the nonirrigable lands included in the preliminary withdrawal.

23. **Avoidance of publicity.**—In making a reconnoissance or preliminary survey publicity should be avoided concerning the details of the project and especially the land that may be temporarily withdrawn pending survey. It usually takes two or three weeks for the order of withdrawal to reach the local land office after the request has been made by the director. If the information becomes public before the order of withdrawal is made the lands will be subject to speculative entry and difficulties may result.

24. **Description of lands.**—In describing lands for withdrawal for reservoir sites and for restoration to entry the subdivisions used may be smaller than the smallest legal subdivision (40-acre tracts, or lots). They should, however, be consolidated as much as possible, using whole sections, quarter sections, or half quarter sections where possible. In describing lands the following general rule should be observed: The townships should be given in order of ranges; for instance, T. 1 N., R. 1 E., R. 2 E., R. 3 E., etc. The quarter sections should be placed in the following order: NE., NW., SE., and SW. Always insert "and" before the last subdivision of each section. Lot numbers should be given first and half sections last. Always state the principal meridian of the survey and the State in which

the land lies. The following is a specimen for arrangement, order of description, and punctuation:

T. 1 N., R. 1 W., S. B. M., California.

Lots 1 and 2, SW $\frac{1}{2}$ NE $\frac{1}{4}$, S $\frac{1}{2}$ NW $\frac{1}{4}$, and S $\frac{1}{2}$	Sec. 1
NE $\frac{1}{4}$, E $\frac{1}{2}$ NW $\frac{1}{4}$, N $\frac{1}{2}$ SE $\frac{1}{4}$, and SW $\frac{1}{4}$	Sec. 5
Lots 1, 2, 3, and 4, SE $\frac{1}{4}$ SW $\frac{1}{4}$, and E $\frac{1}{2}$	Sec. 18
NW $\frac{1}{4}$ NW $\frac{1}{4}$ NE $\frac{1}{4}$ and W $\frac{1}{2}$ NE $\frac{1}{4}$	Sec. 19
SW $\frac{1}{4}$ and N $\frac{1}{2}$	Sec. 20
All.....	Secs. 23, 24, 33, and 35

Where the public-land surveys have not been extended over the lands in question, but are not far distant, it will be advisable to project the public-land surveys, making liberal allowance for possible variance in the final land-office surveys. When the public-land surveys are at a considerable distance the descriptions should be made with a view to their being plotted on the State maps issued by the General Land Office. The fact that any tract is included in one of the so-called "school sections" should not prevent a recommendation for its withdrawal, because the status of such lands depends upon a variety of conditions, and the decision in the matter must be left to the General Land Office.

25. **Examination of land titles.**—The examination of title to the lands involved in the various irrigation projects must be made at some time during the investigation. It is necessary before construction can begin to know as to each tract whether it is public or private land; while in connection with the purchase of right of way for canals or of lands to be flooded in reservoirs, a complete abstract of title will be required. The first step will be to obtain a copy of the record of the local land office to show the present status of each tract. It will not, of course, be necessary to copy notes of entries that have been canceled; or contests that have been decided, or the like. This record will give the nature and number of the entry, a description of the land, the name and post-office address of the entryman, and other details. Such a record will show what land is vacant, what land is entered, and what land has been patented. A book has been prepared for making these abstracts and can be obtained on application.

LAND SUBDIVISION SURVEYS.

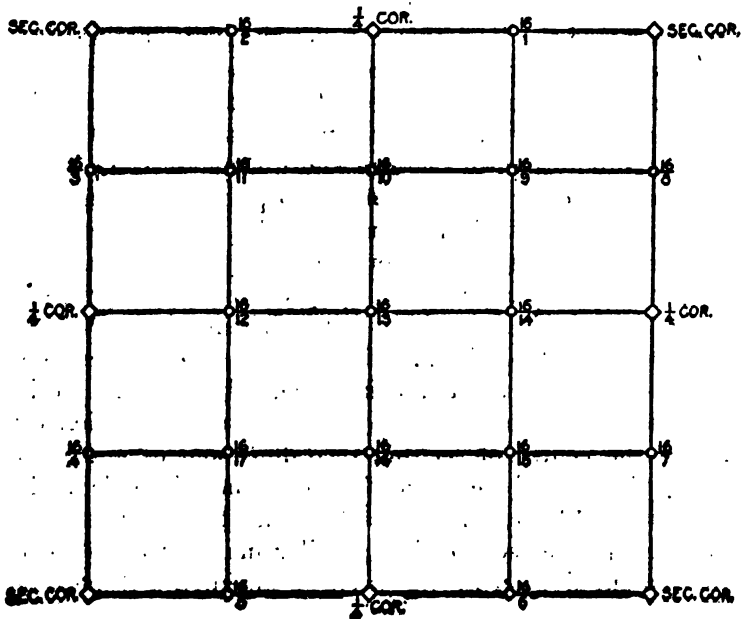
26. **Authority for making supplemental land surveys.**—The first section of the act of Congress entitled "An act providing for the subdivision of lands entered under the reclamation act, and for other purposes," approved June 27, 1906 (34 Stat., 519), authorizes the Secretary of the Interior to fix a lesser area than 40 acres as the minimum entry whenever, owing to market conditions and the special fitness of the soil and climate for the growth of fruit and garden

produce, a lesser area than 40 acres may be sufficient for the support of a family. The size of such entry or farm unit shall be not less than 10 nor more than 160 acres. Whenever it may be necessary, for the purpose of accurate description, to further subdivide the lands to be irrigated under the provisions of the reclamation act, the director of the Reclamation Service may cause subdivision surveys to be made by the engineers of the service. These subdivisions shall be rectangular in form, except in cases where irregular subdivisions may be necessary in order to provide for practicable and economical irrigation. All subdivision surveys differing from the regular fractional method of subdivision of a section must be approved by the Commissioner of the General Land Office, and field notes and plats thereof must be filed in his office as supplemental surveys. The Secretary has authorized the service to make resurveys and resubdivisions of the areas required for reservoirs or other irrigation works and the areas bordering thereon, and to prepare supplemental plats of these areas, designating them as lots. Before proceeding with a supplemental survey, the project manager will advise the Washington office of the nature and necessity of said survey and furnish all important data relative thereto, together with a rough diagram. Whereupon the Washington office will prepare detailed instructions, outlining the method of procedure, and transmit same to the project office. The chief of construction will designate an engineer, assistant engineer, junior engineer, or competent surveyman to make such subdivision surveys, subject to the approval of the director or chief engineer. But, if surveys are necessary to identify parts of legal subdivisions to be released from reclamation withdrawals, which can not be described in terms of legal subdivisions, such surveys are to be made by the General Land Office, the cost thereof to be payable from the regular appropriation for surveying the public lands. (See also Restorations.)

27. *Subdivision into small farm units.*—When it is advisable to make field subdivisions into rectangular farm units of less than 40 acres, the officer designated shall make the necessary surveys and establish the corners in strict accordance with the requirements of the current "Manual of Surveying Instructions for the Survey of the Public Lands of the United States and Private Land Claims," issued by the General Land Office, and in the reestablishment of corners and subdivisions of sections shall be governed by the current circular of the General Land Office on "Restoration of Lost and Obliterated Corners and Subdivision of Sections." Full and complete field notes of all lines run and a careful record of the sizes and descriptions of all corners in regular subdivisional surveys or surveys for the restoration of lost or obliterated corners should be filed in the offices of the chief of construction and project manager,

but these notes are not required by the General Land Office. Resubdivision surveys are not necessary if the farm unit can be definitely described as a fractional part or parts of the regular subdivisions, as for example, $NE\frac{1}{4} NE\frac{1}{4} NE\frac{1}{4}$ sec. —, 10 acres, or $N\frac{1}{2} NW\frac{1}{4} NW\frac{1}{4}$ sec. —, 20 acres. (See also Farm unit plats.)

28. **Corners.**—Particular attention is directed to the necessity of establishing and marking all corners in a substantial and durable manner. Iron posts prescribed by the General Land Office for this purpose will be furnished through the Washington office. These posts are provided with brass caps which are to be appropriately marked in the manner indicated in the circular entitled "Specimen Field Notes and Plats for Subdivision of Sections and Surveys of Irregularly Shaped Tracts, Townsites, and Reservoir Sites." These posts are furnished in three sizes, 3 inches in diameter for township corners and section corners on township boundaries; 2 inches in diameter for all section corners in subdivisional surveys, including closing section corners on standard lines or township boundaries; 1 inch in diameter for all quarter, sixteenth, and meander corners and angle points. Witness corners are to be of the same size used for the true corner. All other accessories to be constructed as required in the General Land Office Manual. In marking corners subdividing quarter sections, it is the practice, where sections have been subdivided into 40-acre tracts, to mark all such corners $1/16$. To avoid confusion in determining the identity of particular $1/16$ corners a system of marking has been adopted, as shown on the following diagram;



It will not be necessary to further subdivide into 10-acre tracts on the ground, but where it is desired to make 10-acre farm units they may be appropriately indicated on the plats.

29. Irregular tracts or reservoir sites.—(a) When a line that does not conform to the rectangular system of the public land surveys is to be adopted as a boundary between two or more tracts or lots, and the same passes through one or more sections, an actual survey of such irregular line will be made upon the ground marked by permanent monuments at each angle point thereof and wherever a line of the public survey is crossed or closed upon. Such line shall be tied to the nearest corner of the public land surveys by course and distance at its initial and terminal points, and a complete description of the public land corners should be included in the notes. Observation on Polaris, or the sun, for the true meridian will not be necessary when deflection angles are read from an established line of an accepted official survey, but the direction or bearing and length of each line thus determined will be recorded; the bearing to be read to the nearest quarter degree, and the distance measured to the nearest 10 links or 10 feet. If the irregular boundary line is to be initiated or closed upon a rectangular sectional subdivisional line not established upon the ground in the course of the public surveys, sufficient subdivision must be made in accordance with the existing regulations of the General Land Office regarding the restoration of lost or obliterated corners and subdivision of sections as will be necessary to provide a line upon which the traverse may be initiated or closed. Necessary retracement and restoration work shall be performed for the location of corners to which connections are to be made. A record of a survey of this character in the form of field notes and plats shall be prepared by the project office for transmittal to the Washington office of the Reclamation Service and there submitted to the General Land Office for examination, approval, and notation upon the records of that office.

(b) In the subdivision of sections and quarter sections, each step necessary for the determination of the boundaries of the tract in question must be recorded in the notes. The statement that a section has been subdivided "in accordance with the official circular of June 1, 1909, by establishing temporary corners at all points necessary for the survey of the land," is not sufficient without a record of the actual work of subdivision. If the original section corners and quarter section corners are found in place, subdivide the section by running straight lines between the opposite quarter section corners establishing the center of section, recording courses and distances obtained for the lines of the quarter section to be subdivided. Establish temporary 1/16 section corners thereon at equal distances and subdivide the quarter section in a similar manner; then the boundaries of the subdivision having been obtained, the true boundary

lines of the irregular tracts should be run and permanent corners established. On all retraced and reestablished lines, as well as on all required subdivision lines, the true bearings and distances must be actually determined and noted, and all permanent corners, both original and newly established, must be accurately described. Care should be exercised in discriminating between official corners and corners set by persons not authorized by the surveyor general to resurvey public lands. Whenever a corner is encountered its right to official recognition should be verified by reference to the original Land Office surveys. The retracement of the section lines should in all cases be confined to that part of the section in which the subdivision is desired, except where any of the official corners are missing; for instance, if the subdivision lies entirely within the northeast quarter of a section, the only official corners necessary are the northeast section corner and the four quarter section corners, and the retracement would be confined to the lines between the section corner and the north and east quarter section corners.

(c) Where the boundary of a tract is to conform to the center line of a canal, and points established thereon will be ordinarily inaccessible and subject to obliteration, the angle points on the center line should be referenced by permanent witness points on either or both of the canal right of way lines, the bearing and distance of each point so placed being recorded in the notes. Should it be impracticable to survey the center line, an offset line should be run, preferably along one of the right of way lines, and all angle points on said offset line should be marked and recorded so that they will serve as witness points to the angle points on the center line, which is to be the true boundary. The courses and distances on the center line should then be computed, and the notes should embody this computed line with each angle point on said center line referenced to the corresponding established witness angle point on the offset line. The general method to be pursued may be made clear by reference to "Specimen Field Notes and Plats for Subdivision of Sections and Surveys of Irregularly shaped tracts, Townsites, and Reservoir Sites," edition of August, 1914.

(d) All irregular tracts formed in subdivision surveys should be designated as lots, and numbered according to the Land Office method. In a section which contains lots in the original survey, the new lot numbers should begin with the next higher number.

(e) The actual area as developed by the resurveys of the irregularly shaped tracts is to be shown. Every part of a legal subdivision of public land must be entirely accounted for when subdivided or modified by supplemental surveys. Each separate subdivision must be computed and recorded on the diagram accompanying the field notes and the portion of any subdivision not needed for reclamation pur-

poses must be accounted for in the Land Office records as fully and accurately as the part in which the Reclamation Service is directly interested.

30. Transmission of survey notes.—When a survey is completed there shall be transmitted to the Washington office for approval three typewritten copies of the field notes written on both sides of and on standard field note paper of the General Land Office, certified to on honor by the officer making the survey to the correctness thereof (G. L. O. surveying instructions, August 17, 1916). The data must not extend beyond 1 inch from the margin of the page, including top and bottom. The first or title page will describe the subject matter, the locus of the same, including the name of the project, by whom surveyed, and the dates of commencement and completion of the work. The second page will contain the index in the form of a small diagram, showing the resubdivision and meander lines with the page references written upon them. The notes shall be accompanied by a diagram or supplementary plat on a scale of four inches to the mile showing the farm units or lots, the meander lines, corners and all features necessary to make the field notes clearly understood. The notes shall be prepared in accordance with the standard form given in the General Land Office Manual, and they shall furnish all information necessary to construct the diagram and to readily retrace the survey on the ground. Field note paper of the General Land Office will be supplied by the Washington office on request.

31. Disposition of approved notes.—After approval by the director three copies of the field notes and four copies of the diagram will be transmitted to the Commissioner of the General Land Office for approval. After approval by the commissioner one copy of the field notes and diagram will be retained in the General Land Office, one copy will be transmitted to the office of the surveyor general for the State, and one copy returned to the Reclamation Service. One copy of the diagram only will be transmitted to the local land office. On receipt of the copy of the field notes and plat approved by the Commissioner of the General Land Office, the project manager will be advised of the date of approval of the notes and plat.

SURVEYS FOR RIGHT OF WAY AND LAND PURCHASES.

32. Surveying requirements.—In making surveys for land purchases and right of way, the section lines, meander lines, and subdivision lines immediately surrounding and intersecting the tract in question should first be retraced. The complete boundary of the tract should then be surveyed, leaving no angles or distances to be computed except in surveys for canal right of way. In such cases the center line should be surveyed and shown on the plat and the boundaries computed so that the tract may be described by courses and distances.

All deflection angles should be recorded as well as courses for checking purposes. There should be not less than two distinct ties to section or quarter section corners, and ties at intersections with section, quarter and quarter-quarter lines should give angles with the course as well as distances.

33. **Plotting notes.**—In plotting notes the scale should be no larger than necessary to show the property clearly and the plat should be of ordinary letter size, or such that it may be folded to that size. All subdivision and lot lines should be shown and boundaries of the tract to be acquired should stand out distinctly. Each plat should contain only the tract or tracts included in a single purchase. All figures, bearings, angles, etc., which enter into the description should be clearly given. On each plat should be indicated the project; feature for which the purchase is to be made; name of owner of land; acreage; section, township and range; State; also the date, scale, and direction of the meridian. Large scale maps which show only a portion of a section should bear a small key map on the scale of two inches to the mile, giving the location of the property in the section. For requirements as to description of lands in deeds and contracts, see Lands, acquisition of, paragraph 15.

34. **Description.**—In general, tracts shall be described by course and distance proceeding clockwise around the boundary. Description should be made, using deflection angles wherever possible, and wherever section or quarter section lines or property lines are intersected ties to corners should be noted in the description by angle, course, and distance, as described in paragraph 32.

Description of canal rights of way may be made by describing the center line specifying the number of feet of right of way on each side measured at right angles thereto. Such description should start and end at the points where the canal center line intersects the property lines and the ties of these points to a section or quarter-section corner must be described by angle and distance. When these points of intersection are on a curve, such angle tie shall consist of the angle between the boundary line and the tangent to the curve at such point. When the center line form of description is used, it shall be noted that the right of way so described shall extend to and be limited by the boundary lines; moreover, the direction of the center line as extended and from which the right of way is measured shall be so described as to clearly define the boundary of the right of way.

When describing curves, they should be specified as "a curve to the right or left with a radius of ---- feet and a distance of ---- feet, measured on ---- feet chords."

Description should be complete for each portion of tract in any subdivision not exceeding in size one quarter section. The acreage of each tract shall be stated in the description and noted on the drawing.

SURVEY NOTES AND NOTEBOOKS.

[See also Construction, par. 7.]

35. Notebooks and page titles.—Transit, level, and other field notes shall be kept in suitable books provided for that purpose. The title-page of each book shall be appropriately marked with the period of the survey and kind of survey, the name of the feature surveyed, the name of the project, and the name of the chief of the party. Each page of the notebook beginning a day's work should be dated and headed with the name of the particular part of the survey covered by the notes thereon, the names of the observer and recorder and the number and make of the instrument; succeeding pages covering the same day's work should be dated and marked "Continued." If the work is not continuous along the line a note should be made at each break, stating where the notes relating to the preceding or succeeding section are to be found. In case of revision of the line the old notes should be preserved and the location of the revised notes given.

36. Recording and checking notes.—All notes and records shall be so full, clear, and legible that they can be readily interpreted by any competent person unfamiliar with the notes and the section covered by the survey. Conventional symbols should be employed so far as practicable. Important computations connected with the notes should be checked and when checked the fact indicated by the usual check mark. In connection with such computations the name of the person making the computations as well as that of the person who checked them should be stated.

37. Disposal of notebooks.—Notebooks should be carefully indexed as the work progresses or when the books are filled. When a notebook is filled, if the notes are to be kept in use, a copy should be made as soon as possible and the original book filed in the project office. Notebooks should be kept where there is no danger of their destruction by fire. Notebooks relating to a project approved for construction should be kept in the project office; those relating to a project that has been temporarily abandoned should be kept on file in the Denver office, and those relating to a project that has been permanently abandoned should be forwarded to the Washington office.

38. History of surveys.—A concise history of the surveys on each project should be included in the annual history in the chapter on surveys. This should include personnel of survey party, area surveyed, location, costs, maps, etc.

LEGAL.

ACKNOWLEDGMENTS.

1. **Expiration of notary's commission.**—Papers of any nature requiring acknowledgment before a notary public preparatory to transmittal should indicate in the usual form the date upon which the notary's commission expires. This requirement of the department extends to all cases of whatsoever nature, regardless of local custom in the matter of the inclusion or omission of the item referred to in the preparation of jurats by notaries public.

2. **Execution other than by acknowledgment.**—The laws of a number of States provide that instruments otherwise entitled may be admitted to record after being proved by the oath of a subscribing witness. Where the grantors or contractors reside some distance from a notary public, some person present who may be an employee of the service, but not the officer who executes the contract on behalf of the United States, may subscribe as a witness to the instrument, and upon his next visit to a notary public or other duly qualified officer execute the proof so as to entitle the instrument to record. District counsel should inform themselves as to the statutes upon this point. This method should not be resorted to if it is practicable to have the instrument acknowledged in the regular manner.

3. **Notarial charges.**—In regard to charges by notaries public who are Government employees, the Secretary of the Interior, under date of January 5, 1905, by direction of the President, ordered that thereafter—

* * * No officer, clerk, or employee in the executive service of the Government who is also a notary public shall charge or receive any compensation whatever for performing any notarial act for an officer, clerk, or employee of the Government in his official capacity, or in any matter in which the Government is interested, or for any person when, in the case of such person, the act is performed during the hours of such notary's service to the Government. Disobedience of this order shall be ground for immediate dismissal from the Service.

On March 31, 1905, the President directed the amendment of the above by adding thereto the following:

This order shall not apply to oaths of disinterestedness, or other oaths required by law, provided that the work in connection therewith is not performed during office hours.

The amendment makes it permissible for employees who are notaries public to charge the usual fees for oaths to affidavits of disinterestedness or other oaths required by law, provided the work is not performed during office hours. So far as service employees are concerned, such work is to be considered a part of the regular routine work of the office and should be performed during office hours, unless by reason of emergency it is necessary for the work to be done at other times. In the event of such emergency, the voucher for the payment of the work must be accompanied by a statement of the project officer setting forth the fact thereof and certifying to the exigency which required the work to be done outside of office hours.

No reimbursement will be allowed any officer for fees paid for administering oaths to accounts for travel or other expense against the United States. In such case the oath should be taken before the project manager or acting project manager, who have been so authorized under section 8 of the act of August 24, 1912 (37 Stat., 487), or by some employee in the service who is a notary. The officer or employee so administering such oath is not entitled to receive any fee therefor. The officer administering such oaths will sign the same, appending under his signature, by rubber stamp or otherwise, "Chief of field party, authorized by act of August 24, 1912, to administer oaths." In all other cases where by law a paper or document is required to be verified by the oath of an officer or employee of the Government, for the cost of which oath such officer or employee is entitled to be reimbursed, the following list of fees may be allowed, and none other, except in cases where the persons claiming reimbursement shall show that a different fee is prescribed, making specific reference to the Statute authorizing the same.

Schedule of fees for oaths.

	Notary.	Justice.		Notary.	Justice.
Arizona.....	\$0. 75	\$0. 75	New Mexico.....	\$0. 50	\$0. 25
California.....	. 50	. 25	North Dakota.....	. 25	. 25
Colorado.....	. 25	. 25	Oklahoma.....	. 25	. 35
District of Colum- bia.....	. 50	. 25	Oregon.....	1. 00	. 25
Idaho.....	. 25	. 15	South Dakota.....	. 25	. 25
Kansas.....	. 25	. 20	Texas.....	. 25	. 25
Montana.....	. 50	. 50	Utah.....	. 50	. 25
Nebraska.....	. 25	. 25	Washington.....	. 50	. 25
Nevada.....	. 75	. 50	Wyoming.....	. 50	. 10

ADVERTISEMENTS AND BIDS.

[See also Newspaper advertising; Emergency quotation; Competition.]

1. **Required by law.**—Section 3709, Revised Statutes, requires advertising before purchasing or contracting for Government supplies or services, except personal services. (See p. 503.)

2. **When not required.**—The following contracts are not within section 3709, Revised Statutes: (a) contracts solely for personal services (see 6 Comp., 314); (b) patented or copyrighted articles (see Purchasing, par. 3) not on sale by dealers but by the owners of the patent or copyright or their agents or assigns, at a fixed and uniform price (see 2 Comp. Dec., 632); (c) when there is only one dealer within a practicable distance from whom the articles can be obtained; (d) when the prices or rates are fixed by legislation either Federal, State, or municipal or by competent regulation; (e) when under a formal contract there arises a necessity for additional work or material practicable of being furnished only by the contractor, or (f) when previous advertising for the identical purchase has been followed by the receipt of no proposals or only such as were unreasonable and under circumstances demonstrating that further advertising would not alter results; (g) leases to the United States of certain described premises; (h) when immediate delivery of the articles or performance of the service is required by a public exigency existing prior to the purchase or contract. Thus, the only latitude left for exercise of discretion is in the determination of public exigencies, as when a pressing necessity arises, which requires immediate action, and where there is not time to solicit and receive competitive bids. Such exigency can not continue for a period longer than may be necessary to enter into a contract or for the securing of competition (3 Comp., 315); neither can a purchase be made under the exigency provision, based upon the small amount involved in the transaction (3 Comp., 315, 5 id., 64.) The employment of Indians and the hiring of their property and purchases from them, in connection with the construction of any irrigation project under this Service are exempt from the provisions of sections 3709 and 3744, Revised Statutes (34 Stat., 1015). There are also certain classes of constantly recurring expenses; such as the purchase and rental of real property, reimbursement of personal traveling expenses, insertions of advertisements in newspapers, transportation at published rates, which have never been held to be within the scope of the statute. Whenever

competition is waived a full showing of the reasons therefor must be made by the officer executing the contract or making the purchase, in a certificate, stating the reasons as nearly as practicable, in the language of one of the exceptions noted herein with full statement of the reasons why such exception is applicable to the case. The certificate should be attached to the Washington office copy of the contract, or transmitted as a separate paper with the original voucher. Special fiscal agents will be held responsible for payments made by them where contracts or purchases do not comply with the above requirements. In case of doubt the special fiscal agent should refer the matter to the district counsel whose opinion, bearing the approval or disapproval of the project manager, should accompany the voucher if paid or the claim if unpaid. The auditor may, however, call for further evidence.

3. **Competition imperative.**—In all cases other than those excepted in the foregoing paragraph the requirement of the law enjoining advertisement is absolute. The exceptions referred to should be carefully limited, and their scope should not be extended beyond the evident intent. Subdivision (b) regarding patented or copyrighted articles not generally procurable, means such articles as are controlled by a patent or copyright and for which but one price can be obtained in the market. This does not refer to such articles as motorcycles, or shoes, or other articles of a particular make or brand when there are other standard makes or brands available for the purpose upon the market. Subdivision (c), where there is only one dealer from whom the article can be obtained, does not excuse advertisement because there is but one dealer in the town or in the neighborhood. Consideration must be given to the possibility of securing favorable bids from dealers at a distance, giving reasonable regard to the cost of transportation and the element of time. The time element, however, is not to be based upon the fact that through neglect there has been failure to advertise sufficiently in advance of the needs of the service. Subdivision (f), where no satisfactory proposals have been received as a result of previous advertising, may not be carried beyond a reasonable time. That is, if several advertisements had indicated that more satisfactory bids could not be received at that time, and at a later date like articles are required, new advertisements should be issued if a reasonable time has elapsed. Dependence should not be placed on former advertising more than three to six months previously, according to the nature of the case and the effect of the seasons upon the prices of the articles to be purchased. Subdivision (h) regarding public exigency must be strictly construed. Public exigencies are not created by conditions which can be foreseen. When through the oversight or neglect of an employee the need for a carload of coal,

flour, or groceries has not been foreseen long enough in advance to secure proper competition, a public exigency has not been created which would warrant such purchase without competition. When such neglect has occurred a small purchase may be made from local dealers to tide over the necessity until proper competition can be obtained. Even in such cases it may be possible to get two or more bids from local dealers within a few hours. The officer making the purchase may exercise discretion after bids have been received and accept other than the lowest. He should file with the voucher a statement of facts sufficient to show that the article purchased is of sufficiently greater value to the service to offset the difference in cost. The Washington office will not give administrative approval to any accounts for purchases unless the regulations as to competition have been properly complied with.

4. **Requirements, nature of.**—It has been held in practice that the word "advertising" under section 3709, Revised Statutes, is not used in such sense as to limit the advertising to the public press. The purpose of the statute is to insure complete publicity and the fullest possible competition. If such publicity and competition can be secured without newspaper advertising by resorting to the use of circular advertising upon the forms that have been prepared for the purpose the requirements of the statute will be satisfied. Where advertisement is made by circulars, the requests for proposals should be sent direct to all available dealers, and similar requests should be conspicuously posted in public places, among which should be a bulletin board in some conspicuous place open to the public, at the project headquarters. Where advertisement is made by posting and mailing circulars effort should be had to bring the advertisement to the attention of at least two interested persons. Where only one person is known to be interested, advertisement should be had by posting of notices, omitting unsolicited mailing of proposals. Abstracts of bids showing that proposals were mailed to only one person are likely to lead to a suspicion of favoritism. In requesting proposals for large construction contracts, and for the purchase of material and machinery, where broad competition is possible, it is the unvarying practice to advertise for proposals in the public press, such advertisement being inserted in leading technical periodicals and newspapers circulating in the vicinity of the contemplated operations.

5. **Circular letters and posting notices.**—On receipt at the project office of a "Request for purchase," which should be numbered consecutively in order to be readily referred to, advertisements on Form 7-705 or the supplemental Form 7-706, should be sent to the parties who are expected to compete for the business. A copy should be sent to postmasters and others who may be asked to give

publicity to the advertisement, using Form 7-709. The request for purchase (R. P. No.) number should be inserted in the order when it is given and copies of the order should be kept in the purchasing office and supplied to the storehouse clerk and forwarding agent. To the copy of the advertisement kept in the purchasing office should be attached the purchasing agent's card, Form 7-714, showing the number of the request for purchase, names of parties to whom the advertisement was sent, where it was posted, the date on which proposals are to be opened, etc. These cards should later be filed alphabetically.

6. **Newspapers and periodicals.**—When it is necessary to advertise in newspapers and periodicals, and the same is authorized by the Washington office, order for advertising, Form 7-446, should be made out and mailed to the publications in which the advertisement is to appear. This order for advertising should be accompanied by a blank form, "Schedule of rates," Form 7-447, upon which the publication will enter its usual rates for advertising, and a voucher, Form 7-448, with memorandum copies, Form 7-449. Upon completing the publication of the advertisement the publishers of the newspaper or periodical will make their claim for the service on the voucher, making two memorandum copies by the use of carbon process, attach the order for advertising, and submit copies of each of the issues of the publication in which the advertisement appeared, sending same to the Washington office. If the publishers have not theretofore filed in the Office of the Secretary of the Interior a sworn statement of their rates, they will accompany the vouchers with a schedule of rates properly executed. These documents will be forwarded to the Washington office and record made of their receipt, the carbon copies of the vouchers being detached. The original voucher, schedule of rates, and the order for advertising will be transmitted to the Secretary for examination and approval. When approved it will be returned to the Washington office for payment.

7. **Government Advertiser.**—When advertisements and specifications are issued from field offices for construction work, equipment, machinery, or materials, a copy of such advertisement should be forwarded to the Government Advertiser, Washington, D. C., where the advertisement will be published free of charge. If an emergency exists, the purchase need not be delayed until the advertisement published in the Government Advertiser will reach prospective bidders, but copy of the advertisement should nevertheless be sent to the Government Advertiser, as a matter of information. (See also Newspaper advertising.)

8. **Default on contract.**—In advertising for bids on the work or any part thereof taken over by the United States under a defaulted contract, the specifications therefor should not deviate from the

specifications of the original contract. The original contractor and his bondsmen are liable for the extra cost of the work only when the work is performed as provided in the original contract.

9. **Proposals, opening of.**—Proposals for important construction work or materials should be opened and considered by a board of not less than three persons convened for the purpose by the chief of construction. Proposals for work or materials under a contract to be executed by an officer in the field should be opened by that officer, or by persons designated by him. Immediately on opening a proposal every paper therein not bearing marks of identification should be so marked as to indicate clearly the proposal to which it pertains. This is essential to avoid the possibility of papers becoming confused or lost. Any proposal received after the time fixed for opening should be returned to the bidder unopened. If, however, such proposal is the only one received, it may be considered as an informal proposal. If the envelope containing proposal, which for any reason should be returned unopened, bears no indication of the name and address of the bidder, the envelope may be opened to obtain this information, but should be at once resealed and returned with statement of the necessity for opening to obtain name and address of bidder. All persons submitting proposals are entitled under section 3722, Revised Statutes, to be present in person, or by attorney at the opening of the bids, and must, therefore, be notified of the time and place of such opening. Proposals withdrawn in the manner contemplated by the specifications should be returned unopened to the bidder. The abstract of bids on the back of Form 7-705, when used, should be completely filled out and signed by the officer or other authorized person, and should show the names of all persons to whom requests for proposals were sent, the places where copies of such requests were posted, a list of all bidders and their bids. When the lowest bid is not accepted, satisfactory reason therefor should be given. No writing other than necessary marks of identification should be placed on proposals or papers submitted therewith. Any additional matter should be placed on separate slips and attached to the papers affected.

10. **Proposals, rejection of.**—By order of the department of December 5, 1916, the director was empowered to reject, and to authorize in writing his subordinate officers to reject, without further reference to the department, proposals received in response to advertisement for bids, even where the amount involved in the bids exceeds \$5,000, in cases where no desirable proposals are received, it being understood that where it is desired to construct work by Government forces in cases involving amounts in excess of \$5,000 authority for such action will be obtained from the Secretary before authority is given to proceed with such work.

11. **Information concerning proposals.**—In pursuance of departmental instructions of January 17, 1914, all formal advertisements for proposals or the specifications accompanying the same shall contain an invitation to all bidders to be present at the opening of proposals. Persons requesting copies of proposals at any time after the opening will be referred for such copies to the returns clerk, Interior Department, Washington, D. C., from whom such copies may be obtained under the terms of section 515, United States Revised Statutes. The project officers are not required to furnish such copies.

12. **Proposals made part of contract.**—If, in preparing a contract for execution in the field, the proposal of the successful bidder is made a part of the contract, a copy should be used, the original being one of the papers required by law to be filed in the returns office. (See Contracts, par. 17.)

13. **Report on bids.**—After considering all proposals for important work or materials, received at the time and place designated in the advertisement, the board will prepare and submit to the Washington office, through the chief of construction, a report thereon, with specific recommendations as to the award of contract, accompanying the report with all proposals received and an abstract in triplicate thereof with the engineers' estimate for comparison with bids, item for item. Abstracts should, as far as practicable, show the proposals in the order of the aggregate amounts quoted, the lowest first. Alternative recommendations for award may be made, the alternative to be considered in case the principal recommendation is not approved, or the contractor so recommended fails to execute satisfactory contract and bond. If award is recommended to other than the lowest bidder, the reasons for such recommendation should be fully stated. The report should be submitted in duplicate and should show that the proposals were opened at the time and place specified in the advertisement, and that all proposals received are transmitted. All papers pertaining to the proposals should be transmitted therewith. Boards should carefully review every question of a technical nature that may arise under the proposals, and their report shall contain definite recommendation as to the desired action upon every such point. Comment should be made on the proposal of the bidder to whom award of contract is recommended, with reference to every alternative proposition made in his proposal, or in papers accompanying it, and with reference to every proposition made by him in modification of the terms of the specifications. If it is desired that any papers submitted with the proposal recommended for acceptance be incorporated in the contract the report should contain a statement to that effect properly

identifying such papers. If the report embodies a recommendation for construction work, either by contract or by Government forces, a complete statement must accompany such report showing status of right of way and authority for the expenditure involved, or suitable reference made to prior report making such showing.

The same action is expected of officers who forward proposals of less importance than those that are referred to specially convened boards. Serious complications and delays may often be avoided by attention to these matters.

14. **Financial standing of parties.**—The board should incorporate in the report a statement of the financial standing and responsibility of each party to whom it is recommended that contract be awarded and of the proposed sureties, if individuals, who guaranteed to furnish bond. If the standing of any such party is not known, the name should be telegraphed to the Washington office with the statement "standing unknown." Commercial agencies will then be consulted so that the standing of the party may be ascertained by the time the report of the board is received by mail. Upon request of the chief of construction the Washington office will secure for officers specified by him letters of introduction from the commercial agency to its agents. The officers bearing such letters will upon presentation be enabled to secure information direct from the agencies of the company with reference to the financial standing of contractors or their sureties.

15. **Abstracts sent to certain newspapers.**—When bids are opened for construction work, equipment, machinery, or materials, a copy of the abstract of the proposals received should be forwarded for publication to the Government Advertiser, Washington, D. C., and to engineering and technical journals which may be interested. Copies of abstracts of proposals to be forwarded for publication should contain the names of bidders and the prices bid on the various items, but should not contain Government freight rates, engineer's estimates, or any additional confidential data but all such data should be shown in or accompany the abstracts forwarded to the Washington office for guidance in awarding the contract.

16. **Specifications, modifications in.**—Where modifications in specifications are necessary subsequent to the issuance of advertisement and prior to the award and execution of contract, because of material changes in the requirements, or material increase or diminution in quantity, all proposals received in response to the original advertisement should be rejected and a new advertisement issued to afford all bidders equal opportunity of submitting bids under the modified conditions and to secure full compliance with the law regarding competition.

17. **Bidders, transporting to work.**—Expenditures in transporting bidders to the site of the work are unauthorized. Every reasonable effort to facilitate the necessary investigation of the work by prospective bidders should be made, and where they can be transported to or from the work without incurring additional expense there is no objection, but the hire of teams for this purpose is not proper.

18. **Certified checks.**—By the terms of the form of "General conditions," approved by the department, all certified checks submitted by bidders are to be drawn to the order of the "Comptroller, U. S. Reclamation Service," where contracts are to be awarded in the Washington office, and to the "Special Fiscal Agent" when they are to be awarded elsewhere. No such check should refer to an individual by name. No check will be considered as meeting the requirements of a certified check where it is payable subject to a condition or qualification, and no proposal accompanied by such conditional check will be considered. All checks submitted with proposals which are required to be considered in the Washington office should be forwarded to that office immediately upon receipt. Checks with proposals under which contract is to be awarded and executed in the field may be deposited in his Reclamation deposit account by the special fiscal agent on the project or in the Denver office. In order to protect both the United States and the bidder from possible embarrassment or loss through the suspension of the bank or from any other cause, these checks, upon their receipt by the special fiscal agent in the office where contract will be awarded, are at once indorsed and deposited with the Treasurer of the United States for collection, and the proceeds are placed in a special fund in the Treasury created for the purpose, known as the "Reclamation deposit fund." Each bidder is advised of this action, and of the reason for the procedure. When the proceeds of a check become returnable to the bidder, such return is made by check of the special fiscal agent by whom the check was deposited, drawn on the deposit fund. Where certified checks are submitted with proposals, the amount of each check should be noted on the envelope in which it was received. Marks of identification should not be placed on checks submitted with proposals, but should be placed on separate slips and pinned to the checks. Letters or packages containing certified checks or other valuable papers should be transmitted by registered mail.

19. **References, important.**—Treasury Department circular No. 52, July 29, 1907; 1 Compt. Dec., 229, 363; 2 id. 185, 632; 3 id. 175, 315, 470, 473; 5 id. 64, 65, 554; 6 id. 314; 12 id, 510; 14 id. 325, 329; 17 id. 114.

ANIMALS, HIRE OF.

1. **When formal contract is not required.**—When a man is employed with one or more animals of which he will remain in charge, his services should be engaged as teamster or common laborer, the auditor having held that this employment is in the nature of personal services and does not come within the provisions of section 3744, Revised Statutes, requiring formal contract. The theory is that, as the man remains in charge of his own property, whether it consists of animals, vehicles, or tools, he is personally responsible for its care, and no liability attaches to the Reclamation Service. Vouchers in payment of such employees in charge of teams should always be stated as "for the services of.....with team of.....animals," rather than for the hire of team and driver. This construction of law, however, does not extend to the hire of animals alone, nor to the rental of vehicles or other equipment. For such cases it will be necessary to have a contract setting out the terms of the agreement.

2. **Terms "span" and "team."**—The terms "span" and "team," as used in horse-hire contracts, are indefinite in their meaning and are variously interpreted in different sections of the country. It is therefore necessary in preparing advertisements and contracts for team hire that the words team or span should be accompanied by a statement of the number of animals intended, as "a span of 2 animals" (or horses or mules) or as "a team of 2, 3, or 4 animals" (or horses or mules), as the case may be.

3. **Notices to be posted.**—If no competition is practicable before contracts are entered into, as where there is an established price for the hire of animals and all available are hired, or where previous advertising has been followed by the receipt of no bids or only such as were unreasonable and under circumstances demonstrating that further advertising would not alter results, notices of the requirements should nevertheless be posted in at least two conspicuous public places, and the contract, when entered into, should be accompanied by a certificate giving a copy of such notice and stating the places and periods of posting. Such contracts should not be continued after the conditions have materially changed so that competition and better prices could be obtained. (See Contracts, par. 66.)

APPEALS TO THE DIRECTOR AND SECRETARY OF THE INTERIOR.

In order to provide for the orderly review by the Secretary of action taken by the project manager and the director, the following procedure is adopted:

1. **Procedure.**—The regulations covering appeals from action of the project manager to the director and ultimately to the Secretary in regard to water-right applications will be found in paragraphs 148-153, General Reclamation Circular. The procedure for appeal in regard to contracts and other matters is given under subject Contracts, paragraph 71.

2. **Preparation of decisions and appeals.**—The instructions of the department are applicable only to cases involving questions which properly rest for decision within the jurisdiction of the Reclamation Service. (First Assistant Secretary, May 29, 1911, 40 L. D., 116.) Decisions, rulings, and reports on such matters should be confined to each case as an entity and more than one case should not be included in any decision, ruling, or report. Each decision or ruling should state the facts briefly, then the decision or ruling with the reason therefor, and conclude with a statement that the party whose case is being considered has 30 days to appeal to the director, and that such appeal should be addressed to the director and filed with the project manager.

3. **Facts to be given.**—Where a decision, ruling, or report involves consideration of reclamation charges there should be set forth among other pertinent facts the date of filing water-right application, date of public notice under which it was filed, and any subsequent public notice of which the applicant may have taken advantage, the payments made, how applied under the present status of the application, and the payments remaining due. A copy of the decision or ruling should be attached to the record in the project manager's office for transmission with the record to the Washington office in case of appeal. Registry return card should be preserved and forwarded as part of the record.

CLAIMS AND ACCOUNTS.

A distinction should be noted between claims and accounts. A claim is any demand against the Government for which payment is asked. An account, in the limited sense applied to it by the Treasury officials, is a statement of the transactions of special fiscal agents, either disbursing or collecting, showing the receipts and expenditures, both of which are to be supported by paid claims or vouchers, and other information sufficient to enable a complete audit to be made.

Claims are divided into two classes, (1) liquidated, where there is no question of the amount of liability, as established by a previous agreement, written or oral, and (2) unliquidated, where the liability has not been so established. The special fiscal agent may pay such claims of the first class as the engineer is authorized to incur if otherwise correct and incurred under action in pursuance of such authority. Among the claims of this class which he should not pay are those for freight and express on Government bill of lading, those requiring the approval of superior officers, as the monthly estimates on contracts for construction, where the contracts provide for the approval of the director, and claims for newspaper advertising. He should usually not make payments under contracts providing for partial payments from month to month, or if a payment is made under such a contract, then all of the payments under that contract should be made by the special fiscal agent at the same location. Where a claim has been paid by a special fiscal agent it becomes a voucher in his account.

COMPETITION.

1. **Advertisement.**—Competition, where Government money is to be expended, is required by section 3709, Revised Statutes. (See Advertisements and bids.) This does not apply to contracts for the collection of money, but for the protection of the Service, a regulation has been adopted for such cases requiring advertisement to secure competition where practicable, except as provided by paragraph 2 of Advertisements and bids. The sale of Government property should usually be made after advertising. Whenever it is not possible to obtain competition the facts should be set out in a certificate forwarded to the Washington office. Renewal of contract without competition under section 3709, Revised Statutes, is prohibited. (See 20 Compt., 612.)

2. **Competitive bids.**—The securing of competitive bids does not necessarily involve the acceptance of the lowest bid. Competition is required by law, and the requirement is absolute except in the case of a public exigency, which is a question of fact and not of opinion or discretion, and competition can be waived only under the conditions specified in Advertisements and bids, paragraph 2. The acceptance of other than the lowest bid rests upon the opinion of the purchasing officer whether the qualities of the articles to be purchased or other benefits to the United States are such that the advantages of the more expensive article outweigh the difference in price.

COMPTROLLER OF THE TREASURY, DECISIONS OF.

1. **Law.**—Section 8 of act of July 31, 1894 (28 Stat., 205-211), known as the Dockery Act, prescribes the functions of the accounting officers of the United States and the methods of payment of moneys appropriated by Congress.

2. **Classification of decisions.**—Decisions affecting the accounts of the Government may be classified under four general headings:

(a) *Advance decisions.*—These are rendered by the comptroller upon request from a special fiscal agent or the head of an executive department or other establishment not under any of the executive departments who may apply for such decision upon any question involving a payment to be made by or under them. In presenting requests for advance decisions, special fiscal agents must be governed by the above, and no decision should be requested except when a voucher has been presented to the special fiscal agent for payment. In all such cases requests for decisions should be forwarded in duplicate to the Washington office for revision and transmission to the comptroller. The head of any executive department or establishment not under any executive department may apply to the comptroller for an advance decision under the circumstances related above, or such request may be made for advice as to the use of the appropriations under his direction.

(b) *Appeals from auditor's settlement.*—Any person who is affected by a final settlement by an auditor may appeal to the comptroller for a revision of such settlement, provided he has not accepted the settlement tendered in the auditor's adjustment. Thus, if errors are conceded by a special fiscal agent and later an attempt is made to appeal to the comptroller such appeal will not be given consideration, also if a claimant has received a warrant in payment of a part of a claim, the balance of which has been disallowed, his appeal will not be considered unless he returns the warrant or deposits with the comptroller the amount of the warrant so received by him. Such appeals should likewise be forwarded through the Washington office.

(c) *Upon certification.*—Each of the auditors is required by law to certify to the comptroller any original or modifying construction of the statutes made by him. As the cases coming under this heading

are purely between the auditor and the comptroller they are of no direct interest to the employees of this service.

(d) *Upon revision.*—The comptroller has authority and it is his duty from time to time to examine into the accounts of the several auditors, making the examination upon his own motion. He will disallow such expenditures as he regards unauthorized.

3. *Preparation of cases.*—In preparing a case for presentation to the comptroller, either for an advance decision or as an appeal from an auditor's disallowance, a full and concise statement of the circumstances surrounding the incurrence of the liability should be made. The voucher and related papers upon which payment is proposed to be made should be submitted as accompanying papers. References should be made to any law which may have been a moving cause leading to the submission of the case. If such laws are short they should be copied in the statement of the case. If this would involve a long statement they may be referred to by the usual references.

4. *Miscellaneous.*—In general, it may be said that no hypothetical cases will be considered, since the law states that advance decisions will be rendered only upon payments to be made. A hypothetical case may never become a liability involving payment. A suspension made by an auditor is not final action, therefore an appeal from a suspension will receive no consideration, as the auditor may eventually allow the amount questioned. Applications for revisions of auditor's settlements must be filed within one year of the date of the disallowance. The decision of the Comptroller of the Treasury upon any question involving a payment is final and binding as to all executive officers, but claimants whose accounts have been disallowed by auditors and against whom the comptroller has rendered a decision may bring suit in the Court of Claims, and if successful in such action, an appropriation from Congress must be secured to cover the item.

CONTRACTS.

1. **Classes.**—By departmental regulations (see par. 2) Reclamation Service contracts are divided into two classes—routine contracts to be executed by officers of the service under general authority from the department and nonroutine contracts to be executed under special authority from the department. No contract (within the limits of the departmental definition given below) will be regarded as routine which varies in legal effect (as opposed to mere description of the work, material or services) from similar contracts of a form previously approved by the Secretary for general use, nor is any contract to be regarded as routine which contains novel or unusual clauses or conditions. As to special contract, form 7-707 for purchases of supplies, etc., see Purchases.

2. **Regulations, departmental.**—The following are the regulations of the department in reference to Reclamation Service contracts:

(a) *Executed under general authority.*—Authority is hereby given to the Director of the Reclamation Service to execute and to authorize in writing his subordinate officers to execute "routine contracts" as hereinafter defined, of the following classes: (1) Any disbursement contract not exceeding \$5,000 in amount, required to carry out the plans duly authorized by the department. (2) Any collection contract not exceeding \$5,000 in amount where the plan under which collection is made has previously been approved by the Secretary of the Interior. A "routine contract" is hereby defined to be a contract of a form approved by the Secretary of the Interior for general use.

(b) *Executed under special authority.*—Other contracts (except in cases of emergency) shall be executed by the Director of the Reclamation Service, or his subordinate officers, only after special authority shall have been given by the Secretary of the Interior for that purpose.

(c) *Emergency.*—In cases of emergency where immediate action is necessary to protect the public interests, authority to execute contracts which are not "routine contracts," as above defined, or are in excess of \$5,000 should, if practicable, be first obtained by letter or telegram. If it is not practicable to so obtain enlarged authority before acting the contract may be tentatively awarded and signed by officers of the Reclamation Service thereunto authorized by the director, but it shall not in that case be effective for any purpose until approved by, or by specific authorization from, the Secretary of the Interior.

(d) *Bonds.*—Bonds given in support of contracts shall be executed and approved under the same regulations as the contracts which they accompany. (See par. 10.)

3. **Field contracts.**—The term "field contracts," subject to the \$5,000 limitation above, will include leases or renewals of leases of withdrawn or acquired land when specific authority to lease the particular property has been given by the Reclamation Commission since March 6, 1914; also, without requiring previous authority from the commission, leases or renewals of leases of Government build-

ings, the original cost of which did not exceed \$2,000, including the necessary land for convenient use thereof not exceeding 5 acres. The term "field contracts" shall also be used to designate all routine contracts as defined by paragraph 2 (a) not exceeding \$5,000 in amount, except—

- (a) Land purchase contracts.
- (b) Leases or renewal of leases of withdrawn or acquired land, not included in the above general definition.
- (c) Disbursement contracts involving between \$1,000 and \$5,000, inclusive, where the lowest bid is not accepted.
- (d) Disbursement contracts amending any contract previously entered into, where the amount is increased \$500 or more.
- (e) Contracts for the lease of office rooms, except renewals of former leases.
- (f) Contracts for the purchase of improvements where the amount involved is in excess of \$500.
- (g) Compromise agreements involving payment for damages caused to owners of lands or private property of any kind by reason of the operations of the United States in the survey, construction, operation, and maintenance of irrigation works.
- (h) Agreements with water-right applicants and entrymen because of supplemental construction thereby increasing announced construction charge.

4. **Authority for execution.**—In pursuance of departmental authority in paragraph 2 (a), authority for the execution of field contracts which show on their face or by means of the accompanying papers a full compliance with the law and regulations as to advertising, execution of contracts, etc., is given:

- (1) To the chief of construction, or acting chief of construction.
- (2) To the project or acting project managers, or if there is no such manager on any project or unit, to such officials as the chief of construction may authorize in writing, copy of such authorization being sent promptly to the Washington office. All contracts executed by project or acting project managers or by others authorized by the chief of construction shall be subject to the approval of the chief of construction, and thereupon become immediately effective.

Field contracts should not be executed by officials other than those authorized to do so in (1) and (2) of this paragraph. One copy of all field contracts, after approval by the chief of construction will be forwarded to the Washington office for filing.

5. **Routine contracts.**—Routine contracts excepted in (a) to (h), inclusive, in paragraph 3, are not to be effective for any purpose until approved in the Washington office.

6. **Nonroutine contracts.**—Nonroutine contracts are not to be effective until approved under special authority from the Secretary

of the Interior. In case of emergency these contracts should be governed by (c) of department instructions in paragraph 2.

7. Proposed contracts.—Copies of all proposed contracts, with related correspondence, must be furnished for the chief of construction's office and forwarded through that office for submission to the Washington office. Executed contracts of every nature must be transmitted by the projects, after approval as to form by district counsel, through the chief of construction whether for approval in Denver or Washington.

8. Contracts approved by Washington office or by Secretary.—Drafts of contracts requiring execution or approval in the Washington office should be prepared in form suitable for such action and submitted through the chief of construction. Where contracts require submission to the Secretary it is the practice to secure authority from the Secretary for execution or approval. If a contract is of unusual importance and involves new and unusual questions of policy the matter of execution or approval by the Secretary should be submitted to the Washington office, whereupon instructions will be given for a modification of the form if deemed advisable.

9. Electrical and mechanical engineering contracts.—In making contracts involving electrical and mechanical engineering questions the specifications, drawings, and forms of contract should be submitted to and approved by the chief of construction or his properly authorized representative before being issued. When such specifications, contracts, and related matters are submitted to the Washington office the chief of construction or project manager should report whether the same have been approved by or on behalf of the chief of construction. (See p. 164, Electrical and mechanical engineering.)

10. Bonds accompanying field contracts.—Bonds accompanying field contracts will be approved by the chief of construction, including bonds with corporate sureties supporting contracts approved in the Denver office. The chief of construction, before approving bonds, will assure himself that all formalities as to the execution of bonds have been complied with, that the proper certificates as to financial responsibility have been furnished, etc. (See pars. 21 to 28.)

11. Amount.—All contracts not showing clearly on their face the amount of the expenditure or collection involved, must be accompanied by an estimate of the probable expenditure or collection. The paragraphs or sections of a contract should be numbered to facilitate future reference.

12. Parties, designation of.—The party contracting with the United States should be designated the "Contractor," or indicated in some other distinctive way. Where there are more than two parties to a contract, other appropriate designation should be employed for each of the parties contracting with the United States.

The terms "party of the first part," "party of the second part," etc., should be dispensed with wherever possible.

13. **Copies, number of.**—Only one copy of a contract should be executed. Copies should be supplied those entitled thereto. Where, however, the contractor insists on a duplicate original the contract may be executed and approved in duplicate, but contractors should be discouraged as much as possible in such demands. Certified copies can be furnished whenever desired. (See par. 39.)

14. **Termination of contract.**—When a contract is for an indefinite term, there must be a provision for its termination by the United States on notice in a specified time. (See par. 51.) The Washington office should be notified promptly of completion or cancellation of any contract. Where liquidated damages attach in case of delay in the completion of work beyond the time allowed in the contract, a definite date for completion should be stated in the contract, or if it is desired to make period of completion an element of competition, bidders should be required to state definite date on or before which they will undertake to complete the contract. Specifications should provide that where a fixed date of completion is provided in specifications or proposal, the United States shall be allowed not to exceed a stated period (usually 30 days) for award and execution of contract exclusive of time occupied in transmission of papers to and from contractor and execution by him, and that if the United States uses more than the time so allowed the time of completion will thereby be extended a period equivalent to the excess time so used by the United States.

15. **Contract contingent upon appropriations.**—There should be inserted in all contracts involving expenditures or rendering of service by the United States, after the close of the fiscal year in which the contract is executed, whenever the new appropriation is to be charged therewith the following clause:

ARTICLE —. Where the operations of this contract extend beyond the current fiscal year it is understood that the contract is made contingent upon Congress making the necessary appropriation for expenditures thereunder after such current year has expired. In case such appropriation as may be necessary to carry out this contract is not made, the contractor hereby releases the United States from all liability due to the failure of Congress to make such appropriation.

Two points should be kept in mind: (a) Contracts signed within any fiscal year without the above-mentioned clause constitute a definite incumbrance on the appropriation for that year, no part of which can be used for any other purpose, and if the work is not completed in that fiscal year the unexpended balance of said appropriation is by law available for such work during the next two fiscal years without special provision in the contract. (b) When a contract is intended to extend beyond the fiscal year in which it is signed, and

it is intended to charge the part of the work performed in the next fiscal year to the next year's appropriation, there must be incorporated the clause specified, and it is only necessary to treat as an incumbrance on the current appropriation the cost of the work of that year, leaving the balance to be covered by appropriation for the ensuing year; but this will not be allowed by the Treasury unless the above-cited clause is included in the contract.

16. Execution of contracts.—District counsel should exercise care to see that instructions governing the execution of contracts (see also printed instructions on the back of contract forms) are fully complied with. Copies of contracts should be accurate, full, and complete. Abstracts of bids, certificates, and other papers not incorporated in the original contract should not be bound in or fastened to copies of the contract. Riders or pasters should not be used on contracts. Any additions or changes which can not be interlined and initialed by the parties to the contract should be written on a full-sized sheet, shown by page numbers or otherwise to be a part of the contract, and incorporated therein by being attached securely by staples or otherwise. The papers should be so attached that the fastenings will not interfere with the ready handling and examination of the contract. The name of the officer who is to sign for the United States should not be inserted except in the office where the contract is to be prepared for execution.

17. Maps or papers made a part of contracts.—Whenever a map or other paper is, by the terms of the contract, made a part thereof the map or paper must be properly described in the contract so that it may be identified with certainty. All such documents must accompany the contract. All copies of such contracts must include copies of all such related papers. (See also Advertisements and bids, par. 12.)

18. Land, description of.—Whenever a contract involves the description of land by legal subdivision, the description should be written in full, thus: "The northwest quarter (NW $\frac{1}{4}$) and the southeast quarter of the northeast quarter (SE $\frac{1}{4}$ NE $\frac{1}{4}$) section ten (10), township twenty-one (21) north, range fifty-five (55) west,—M., containing two hundred (200) acres." (See Surveys, par. 24, and Lands, acquisition of, par. 15.)

19. Acknowledgment.—All contracts or deeds requiring recording should be executed and acknowledged with the formality required by the State laws and in accordance with the instructions. (See Acknowledgments.) All acknowledgments should be in the usual form if practicable.

20. Forms.—Printed forms of contracts should be used whenever practicable. Instructions relative to manner of execution are printed on the forms and should be closely followed. When changes in these forms are necessary to meet the case in hand they should be made

and accompanied by proper certification. Such changes should be reduced to a minimum, as the printed forms have departmental approval and changes therein will delay approval. Forms are amended from time to time, and when an amended form is supplied all old forms supplanted thereby should be at once destroyed.

(a) Field contracts to be approved by the Washington office should be executed on Form 7-523 or other approved forms appropriate to the case, submitted to the district counsel for his notation of approval as to form and procedure, and forwarded to the Washington office through the chief of construction. (See par. 40.)

(b) Field contracts to be approved by the chief of construction or acting chief of construction should be executed on Form 7-523a; when executed by one of these officers no approval is necessary, and the contracts become effective at once. Before execution all field contracts should be submitted to the district counsel, who will initial the same if satisfactory as to form and procedure; if not, he should indicate the corrections required. (See par. 40.)

21. **Bonds.**—All formal contracts for the construction or repair of public works and buildings must be supported by a bond. The object of the bond is twofold: (a) To protect the interests of the United States; (b) to protect laborers and material men in their claims against the contractors and subcontractors for labor performed or material furnished. (See act of February 24, 1905, 33-Stat., 811, p. 506.) Care should therefore be taken that the amount of the bond be sufficient. No copies of bonds are filed in the returns office, the original being filed in the auditor's office when the executed copy of the contracts is filed there. When the original bond is filed in the auditor's office, a copy is required for the Washington office.

22. **Bonds, where to be prepared.**—Where a contract is drawn up in the Washington office to be signed there the bond to accompany the same will also be prepared in that office. In all other cases where bonds are necessary the bond should be prepared in the field on the proper form. Detailed instructions as to the filling out of the bond forms and as to their execution are printed on the forms and should be carefully followed. As to approval of bonds, see paragraph 10.

23. **Bonds, amount of.**—Surety companies fix the premium of a bond in proportion to the total amount of the contract, with no particular reference to the penal sum of the bond. In large construction contracts which have been suspended, it has sometimes occurred, where bond was 20 per cent of the contract price, that the excess cost of completing the work thereunder has been largely in excess of the penal sum of the bond. It is necessary, therefore, that in such contracts the amount of the bond should ordinarily be 50 per cent of the estimated contract price. In the preparation of advertisements, proposals, and specifications, careful consideration should

be given to the contingencies which may arise in case of suspension of the operation of the contract; and the bond should be made sufficiently large to meet the possible extra cost, in case the work is to be completed by the Government. In construction contracts, where the work is likely to be taken by the farmers on the project, or by local contractors, the proportion of the bond to the contract may be much smaller in view of the fact that there is probably less risk of large excess cost if such contracts are suspended. In contracts for machinery and installation the bond should be determined, first on the basis of the possible increase in the market price of the machinery in case it is necessary to suspend the contract and make an emergency purchase; and second, upon the amount and risk of the work of installation. In the purchase of machinery or supplies which do not involve installation, or any work by the contractor upon the right of way of the United States, no bond is necessary, but may be required if deemed advisable. Its amount should be based on the possible differences in price between the estimated cost and the cost in case it becomes necessary to purchase under conditions of urgency, if the contract should be suspended. In preparing specifications, where it is not practicable to state the exact amount of bond which will be required of the successful bidder or bidders the following should be inserted in "Notice to bidders," or specifications:

Bidder will, if successful, execute a satisfactory contract and furnish bond in an amount not less than — per cent of the total amount of such bid for the faithful performance of the contract, the amount of the bond to be computed as follows: Bonds in amounts less than \$1,000 will be made only in multiples of \$100; in amounts exceeding \$1,000 and less than \$5,000, in multiples of \$500; in amounts exceeding \$5,000, in multiples of \$1,000; provided, however, that the amount of the bond shall be fixed at the lowest sum that will fulfill all conditions herein set forth.

24. Bonds can not be canceled.—Bonds given by contractors are not canceled and the sureties remain subject to any claim of the Government arising under the contract, and for the payment of labor and material claims against the contractors and subcontractors. Suit may be brought within one year after the completion and final settlement of the contract. (See act February 24, 1905, 33 Stat., 811, p. 506.)

25. Bonds, printed forms of.—Forms of bonds will be used as follows:

(a) When contractor is a corporation, Form 7-293c; (b) when the contractor is a firm or partnership, Form 7-293f, and (c) when the contractor is an individual, Form 7-293i. Supplies of these forms should be kept on hand. Directions with respect to the execution of bonds and the qualification of sureties, both individual and corporate, are printed on the forms.

26. Sureties.—Sureties may be individuals or corporations engaged in the surety business and authorized to act as sole sureties on bonds given to the United States under acts of August 13, 1894 (28 Stat.,

297), and March 23, 1910 (36 Stat., 241). Corporate sureties are preferred. Sureties are not entitled to any special privileges in securing information relative to or watching progress of work. They will be extended the same privileges only as those given the public at large. They may be permitted to complete work under suspended contracts.

27. **Sureties on individual bonds.**—Whenever contracts executed by officers in the field are accompanied by bonds with individual sureties it is desired that a report showing the financial responsibility of each surety be transmitted to the Washington office, or to the chief of construction, when the bond is to be approved by him, with copy for the Washington office, which will be forwarded with the contract. If the financial standing of the sureties is unknown, investigation thereof should be made before the bond is forwarded to the Washington office, and the facts as to the sufficiency of the bondsmen should be set out in the report accompanying the bond.

28. **Sureties, inquiries by.**—Inquiries addressed to officers by sureties on contractors' bonds relative to the condition of the work should be acknowledged promptly and at once referred, with report thereon, to the Washington office for reply, except where the inquiry is limited to the single question as to whether the work under the contract has or has not been completed, in which case the officer should reply stating simply the fact that the work has or has not been completed, as the case may be.

29. **Extension of time.**—Application for extension of time should, where practicable, be submitted prior to the expiration of the time limit in the contract. The necessary papers must be submitted to the chief of construction in triplicate, the originals being for the auditor, and shall include:

(a) The application signed by the contractor, stating the causes and reasons which constitute the grounds upon which the extension is asked. These causes must be such as are contemplated by the terms of the contract regarding extension of time.

(b) Consent of sureties executed in the same formal manner as the bond. If in the case of a corporate surety, the consent is not executed by the same officer who executed the bond, evidence of the signer's authority to act for the company should be attached to the consent; or, if such authority has been previously filed, reference thereto should be made. In case sureties refuse to consent to an extension, the contractor may secure a new bond, in same amount as the old bond, covering the contract as extended, and the new bond, if satisfactory, will be accepted in lieu of consent. Printed forms (7-628) are available for use by sureties in executing consent to the granting of extension of time to the contractor. The use of

these printed forms, though preferred, is not obligatory, and a consent not on the printed form, but containing the essential provisions thereof, will not be objected to on that account.

(c) Engineer's certificate should cover all valid grounds for extension claimed by the contractor, and in stating the causes of delay, should follow as closely as possible the language of the specifications relative to causes justifying the extension. It should contain recommendation for extension for a definite period, expressed in days (not in months or weeks), which may be less, but must not be greater than that asked by the contractor and agreed to by the sureties. The certificate should be as brief as is consistent with the presentation of all essential facts. The following form should be used with such modifications as may be required under the circumstances relating to each case, the clauses in parentheses being omitted when not applicable:

I hereby certify that in my opinion the work covered by contract No., dated, between the United States and for, Project was subject to unavoidable delays prior to the expiration of the time limit fixed by the contract (as heretofore extended) resulting from unforeseen causes that were undoubtedly unavoidable and beyond the control of the contractor, to the extent of days. (These delays are in addition to all delays for which extensions have heretofore been granted.) The causes of such delay were as follows:

.....
I therefore recommend that under the provisions of paragraph of the specifications of the contract an extension of time be granted covering a period of days (in addition to the extensions heretofore granted).

.....
Engineer, U. S. R. S.

When liquidated damages are involved, the certificate should in no case state that the United States suffered no damage by reason of the delay. (See par. 33.) The effect of such statements is to embarrass the service by encouraging contractors to resist deduction of proper damages. It is difficult to assume a case in which some damage may not result to the United States, and the courts alone are competent to determine the question. Engineers therefore should under no circumstances make written or oral statements to the effect that no damage has resulted to the United States by reason of the failure of contractors to complete in the time agreed upon or allowed by extension.

The Comptroller of the Treasury, following the decision of the Supreme Court in the Bethlehem Steel Co. case (205 U. S., 121), has held that it is not necessary to inquire or consider whether the Government suffered actual damage, but that in a proper case where the parties to the contract have agreed upon and liquidated the damage that will be sustained, in the event of breach of contract,

neither party will be permitted or heard to say that there was no damage. (16 Comp., 623.)

30. **Explanation by engineer.**—Any explanatory or detailed statement which does not belong in the certificate should be incorporated in the letter of transmittal or separate report. Where extension is not recommended no certificate need accompany the papers, but the facts should be stated fully in the letter of transmittal.

31. **Delay for definite period.**—Where the causes of delay prevent work for a definitely known period, as the closing of work by winter weather, extension may be granted to cover such definite delay, as a part of the time allowed as the *equivalent* of the delay, but in such cases no payment can be made for work performed upon the portion of the contract subject to the extension between dates of closing and resuming work. Such extensions will be allowed only where clearly shown to be necessary to protect the interests of the United States or of the contractor. Where a contract provides for damages of a certain amount per day for "every day occupied in excess of the time set for the completion of the contract," without other limitation, the word "occupied" used in this connection is construed to mean that the duration of a delay shall be computed upon a basis of actual working days, exclusive of holidays and Sundays. An executive officer has no authority to waive the provisions of a contract relating to deductions for delays, though the United States has suffered no loss on account thereof. (Compt. decision, Dec. 5, 1906, Hubbard & Carlson contract, Boise project.)

32. **Limitations.**—The power of the Secretary to extend a contract is limited to causes that were beyond the control of the contractors within the meaning of the contract. (Comptroller's decision, Apr. 16, 1907, Burke Construction Co. contract, North Platte project.)

33. **Allowance on final statement of account.**—In granting extension of time, where there is no provision in the contract that requires the causes of delay to be ascertained at any particular time, the allowance of additional time by the Secretary on final statement of account did not prejudice any right of the Government. (Compt., May 17, 1907, General Electric contract, Salt River project; Apr. 7, 1908, Utah Fireproofing Co. contract, Boise project; Feb. 25, 1909, contract with Nels Olson, Shoshone project.)

34. **Contractors, instructions to.**—All directions given by the engineer to the contractor, explaining, modifying, or extending the specifications, or affecting the manner of performing the work, or the price to be paid, must be in writing. A copy thereof must be sent the Washington office and another retained in the files of the engineer. The letter should state explicitly that no extra compensation will be paid, or if it is to be paid the precise method by which payment will be computed must be shown with reference to the paragraph of

the contract so providing. Such directions must be based on some specific provision of the contract and the specific paragraph referred to by number. The letter should state the results to be accomplished, leaving the contractor free to handle the details as he sees fit, committing the Government only to responsibility as to the results. As such directions are liable to be the subject of controversy, and in such case closely scrutinized by the contractor and his attorneys, they should be clear and specific, confined to statements of fact and requirements of the contract, and invariably in writing. Wherever practicable the assent of the contractor should be secured in writing, preferably by signing an acceptance on a copy of the order. Any changes in the work which constitute a material deviation from the specifications, either by increase or decrease in quantity or by change in conditions, should be reported to the Washington office before the work is commenced, so that consideration may be given to the question of securing the consent of the surety in advance. (See Construction, par. 6.)

35. *Suspension of contracts.*—Construction contracts usually authorize suspension on default of the contractor. When a contract has been so suspended immediate possession should be taken by the United States of the plant, animals, equipment, material, and supplies of the contractor, a full and complete inventory of the same immediately made, and copy sent the Washington office. This inventory must show the number of each class of articles and amount of all supplies taken, their present condition, with their original and present value. When taking over valuable equipment a board of appraisal, with at least one disinterested person, should be appointed to fix the values. (See also Advertisements and bids.)

36. *Status of property taken over.*—Property taken possession of by the United States under suspended contracts must not be surrendered in the absence of instructions from the Washington Office. No such instructions will be issued except upon conclusive proof of ownership and right of possession or upon judicial order. The relation existing between principal and surety is not such as to justify taking by the United States of the property of the surety under the provision authorizing the United States to suspend the contract in case of default, even though the property is in the possession of the contractor and is being used as his own in the construction of the works. Unless there is satisfactory proof that property in the possession of a contractor used in the construction of the works is the property of another, possession should be taken of all the property in such use. If ownership is claimed by another, he should be required to prove his title before the property is released. (Secretary's decision of Sept. 14, 1906, Charles Spear contract Corbett tunnel.)

37. *Suspended contract, inventory and final account under.*—Upon statement of the final account under a suspended contract, a full and

45. Not filed within 30 days.—If a contract is not filed in the returns office within the time specified by law, a statement should be attached thereto, as the last paper in the return, setting forth the "unavoidable accident or causes not within his control," which prevented the filing as required by the law. If the reasons set forth are found by the Washington or the Denver office to be well founded, the statement will be approved before transmitting the contract to the returns office.

46. When 30-day period begins to run.—On October 24, 1911, the department decided that the 30-day period within which contracts executed by one officer subject to the approval of another must be filed in the returns office begins to run from the date of such approval. Where contracts become effective immediately upon execution, the 30-day period begins to run from the date the contract was actually signed on behalf of the United States irrespective of the date in the preamble of the contract. Where a small contract is executed by the chief of construction or acting chief of construction at a date later than the date of the contract, it will be necessary to attach to the returns office copy a memorandum on a separate slip, showing the date on which the contract was signed..

47. Instructions for filing in returns office.—In order that the returns of contracts may be prepared in a uniform manner, the following instructions should be strictly observed:

1. Returns should be arranged and consecutively numbered in the following order:

(1) Oath of disinterestedness of the contracting officer (unless printed on the contract form).

(2) Copy of contract.

(3) Copy of advertisement.

(4) Original accepted proposal.

(5) Original unaccepted proposals in order.

2. When a proposal is the basis of two or more contracts:

(a) All original unaccepted bids should be attached to one of the contracts.

(b) Each original accepted proposal should be attached to the contract to which it relates.

(c) Notation should be made on each affidavit of disinterestedness showing the disposition made of all papers in the case not attached to such affidavit, as, for example: "All unaccepted proposals are attached to the contract made with dated for"

Other accepted proposals are attached to contracts with"

(d) A duplication of blue prints, plans, and specifications may be avoided by a similar procedure if necessary, but wherever practicable, each copy of contract filed in the returns office should be complete.

3. Miscellaneous instructions for returns office copies:

- (a) Contract should be dated.
- (b) Contract should show copy of the contractor's signature.
- (c) Contract should show copy of the contracting officer's signature.
- (d) Jurat should be dated.
- (e) The designation of the authority of the authenticating officer to administer oaths and date of expiration of his commission should be added after the signature to the jurat.
- (f) The returns office has a flat filing system having a maximum capacity of 14 by 8½ inches, and blue prints, etc., should be transmitted smoothly folded to these dimensions in such manner that the first three papers may be examined for indexing purposes without the necessity of unfolding.
- (g) The upper right-hand corner of the first paper in the return should be reserved for file-numbering purposes.

4. Ribbon and seal will be attached where there is more than one paper. Copies of bonds are not filed in the returns office.

48. **Excess quantities—new advertisement.**—On February 24, 1914, the Comptroller of the Treasury held that material in addition to quantities covered by a contract can not be purchased under such contract, but must be made the subject of a new advertisement, in accordance with the provisions of section 3709, United States Revised Statutes. The legality of the practice of including in specifications a provision for increase or decrease of the stated quantity of material by a fixed percentage was sustained, provided the provision for such increase or decrease was incorporated in the information upon which all bidders submitted their proposals.

This applies also to purchases under proposal and acceptance. The per cent of maximum variation must be definitely stated, with a given variation for less than the stated amount. Use of the following language is suggested: "The right is reserved by the United States to increase the quantities to be furnished on any item to an extent not to exceed — per cent, or to decrease said quantities to an extent not to exceed — per cent." The words "more or less" should not be used in any case to serve as a basis for variation of quantity. Ordinarily, the variation should not be greater than 25 per cent, although in some cases, as in the purchase of miscellaneous hardware, or dry goods for mercantile stores, the per cent of increase might advantageously be placed even as high as 100 per cent to cover needs which can not be accurately ascertained. Miscellaneous services such as blacksmithing, etc., for a stated period of time may be covered by contracts provided proper competition is secured, as in that case it is believed the fixed period of time provides the element of equality of competition required by the Comptroller of the Treasury.

49. **Renewed or amended contracts.**—All letters transmitting renewals or amendments of contracts should in each instance state that fact, and give date of the contract renewed or amended.

50. **Lease of Government equipment.**—Only under certain exceptional conditions of public benefit will authority be given to lease or loan idle plant or equipment, as where a county is not equipped with road machinery and the like, the use of a road grader, or other appropriate idle machinery may be loaned or leased. To obtain authority in such cases, the project manager should make full report and recommendation, to the chief of construction, specifying the terms of lease, which should contain provisions for protection of the property and its safe return to the service. Special authority from the Washington office is not required, however, when the value of the property leased does not exceed \$100. The following form of agreement may be used for rental of equipment to water users:

Application is hereby made to rent

.....
for a period of days, for which I agree to pay the sum of \$..... on or before ; and failing to return the said equipment on the expiration of said period, I promise to pay an additional rental charge of \$..... per day for each day said equipment is thereafter retained; I further agree that the said equipment shall be returned in as good condition as the same was when delivered to me, reasonable wear and tear excepted, and agree to be responsible for the replacement or repair thereof in case of loss, or damage in excess of reasonable wear and tear.

Approved.

Project Manager.

Payment should be required in advance where an instalment of rent coming due at any one time is \$200 or less. Provision should be made in the contract for interest at not less than 6 per cent per annum on all deferred payments. The agreement should be made in duplicate, one copy accompanying the collection voucher. No reference to this agreement should be noted on the voucher.

51. **Termination, notice of.**—Notice of termination of contract should be given promptly to the office where the contract was approved whenever a contract, indefinite as to time of termination, is terminated. (See par. 14.)

52. **Licenses for structures on Government right of way.**—It is to the interests of the public and the projects that such licenses be given with certain limitations; and, in pursuance of the authority conferred by the Secretary of the Interior on July 6, 1909, the project managers are authorized to approve in favor of the owner or possessor of lands within the various projects a revocable license, on Form 7-206, to build certain structures, such as bridges, culverts, and the like on or across rights of way owned or controlled by the United

States, which should be renewed every five years at least, or sooner in case the property changes hands.

Form 7-296 provides for the removal of the structure at the expense of the licensee, and is to be used where the structure is located by the licensee for his own convenience. On March 18, 1914, the department approved Form 7-296a, which provides for the removal of the structures at the expense of the United States, but is otherwise similar to Form 7-296. Form 7-296a may be used where, owing to to the building of a canal, lateral, or other reclamation structure, there has been or will be serious interference with the cultivation and irrigation of the land, for which no compensation has been made, and where some structure is required on the landowner's part in connection with the reclamation works. For further instructions, see Structures over ditches and canals.

53. Fences across Government right of way.—Authority for the construction of fences by licensees, as provided in paragraph 52, should be allowed only in exceptional cases and under carefully drawn conditions and only with the approval of the chief of construction, since the general policy of the service is not to permit the erection of fences across rights of way. (See Fencing on canal right of way, p. 246.)

54. Licenses, filing copies of.—Copies of such licenses need not be filed in the Washington office, but must be preserved in both the project office and in the office of the chief of construction.

55. Congressional clause.—All contracts, with the exceptions noted below, must by law (sec. 3741 R. S.) and departmental regulation contain the following provision:

No Member of or Delegate to Congress, or Resident Commissioner, after his election or appointment, or either before or after he has qualified and during his continuance in office, and no officer, agent or employee of the Government, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise thereupon. Nothing, however, herein contained shall be construed to extend to any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or company, as provided in section 116 of the act of Congress approved March 4, 1909. (35 Stat. L., 1109.)

In water-right applications and similar instruments as hereinafter described, the words "*no officer, agent or employee of the Government*" may be omitted.

Except for the words in italic, the prohibition in the congressional clause is required by act of Congress of March 4, 1909. (35 Stat., 1109.) The italic words, however, were inserted by regulation only, and therefore may be waived in cases where all three of the following conditions occur: (1) The contractor is an officer or employee of the United States, (2) the same contract is offered to all applicants, and (3) competition is not required by law or the regulations.

56. Nonassignment clauses.—All contracts, except for the lease of real property to the United States, must contain the nonassignment clause, as follows:

No interest in this agreement shall be transferred to any other party, and any such transfer shall cause annulment of the contract so far as the United States is concerned; all rights of action, however, for breach of this contract are reserved to the United States, as provided by section 3737, Revised Statutes of the United States.

57. Eight-hour law, foreign labor, and convict labor.—In contracts providing for the performance of labor or construction or installation work, and in all contracts for materials or articles that are not standard and, therefore, not usually purchasable in the open market, and also in all contracts where there is any doubt whether the eight-hour law applies, the following clause should be inserted:¹

Eight-hour law, foreign labor, and convict labor.—In all construction work eight hours shall constitute a day's work. It is expressly stipulated and agreed, in accordance with the provisions of the act of June 19, 1912 (37 Stat., 137), that no laborer or mechanic doing any part of the work contemplated under this contract, in the employ of the contractor, or any subcontractor contracting for any part of the work contemplated to be performed hereunder, shall be required or permitted to work more than eight hours in any one calendar day upon such work, under a penalty for each violation of this provision of \$5 for each laborer or mechanic for every calendar day in which he shall be required or permitted to labor more than eight hours upon said work. It is further understood and agreed that any officer or person designated as supervisor or inspector of the work to be performed hereunder, or to aid in enforcing the fulfillment of the provisions hereof, shall, upon observation or investigation, forthwith report to the proper officer of the United States all violations of the provisions of the act of June 19, 1912, together with the name of each laborer or mechanic who has been required or permitted to labor in violation of this stipulation, and the day of such violation, and the amount of the penalties imposed under this stipulation shall be withheld from any moneys due or thereafter becoming due under this contract, for the use and benefit of the United States, by the officer or person whose duty it shall be to approve the payment of moneys due or thereafter becoming due hereunder, whether the violations of the provisions of this contract are by the contractor or subcontractor. No Mongolian labor shall be employed under this contract. The importation of foreigners and laborers under contract to perform labor in the United States or the District of Columbia is prohibited. (Sec. 3738, Rev. Stat.; U. S. acts, Aug. 1, 1892, 27 Stat., 340; June 17, 1902, sec. 4, 32 Stat., 388; Feb. 26, 1885, 23 Stat., 332; Feb. 23, 1887, 24 Stat., 414.) In the performance of this contract no persons shall be employed who are undergoing sentences of imprisonment at hard labor imposed by courts of the several States or municipalities having criminal jurisdiction. (Executive order, May 18, 1905.)

58. Mortgaging plant, etc.—In contracts involving the use of construction implements, or so-called "plant," the following provision should be inserted:

The contractor shall not, under any circumstances, give or execute any mortgage, deed of trust, or other conveyance or instrument of any description affecting or intended to affect his right, title, interest, or property in or to any plant, machinery, tools, appliances, materials, or animals that may at any time be used in the prosecution of this contract.

¹ See also "Eight-hour law," p. 230.

59. Special lien in favor of United States.—In contracts where applicable the lien clause which appears in the standard specifications should be incorporated, as follows:

A special lien to secure the claims of the United States in the event of suspension of the contract is hereby created against any property of the contractor taken into the possession of the United States under the terms hereof, and such lien may be enforced by a sale of such property under the direction of the Secretary of the Interior, and the proceeds of the sale, after deducting all expenses thereof and connected therewith, shall be credited to the contractor. If such net proceeds shall be in excess of the claims of the United States against the contractor, the balance will be paid to the contractor or his legal representatives.

60. Patented articles.—In contracts providing for the purchase or use by the United States of machinery or materials which may be subject by virtue of the patent laws to claims of persons or corporations not party to such contracts, the following paragraph should be inserted.

Patents.—The contractor shall hold and save the United States, its officers, agents, servants, and employees, harmless from and against all and every demand, or demands, of any nature or kind, for or on account of the use of any patented invention, article, or appliance included in the material or supplies hereby agreed to be furnished under this contract, and should the contractor, his agents, servants, or employees, or any of them, be enjoined from furnishing or using any invention, article, material, or appliance supplied or required to be supplied or used under this contract, the contractor shall promptly substitute other articles, materials, or appliances in lieu thereof, of equal efficiency, quality, finish, suitability, and market value, and satisfactory in all respects to the United States. Or, in the event that the United States elects, in lieu of such substitution to have supplied, retain, and use any such invention, article, material, or appliance as may by this contract be required to be supplied, in that event the contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary to enable the United States, its officers, agents, servants, and employees, or any of them, to use such invention, article, material, or appliance, without being disturbed or in any way interfered with by any proceeding in law or equity on account thereof. Should the contractor neglect or refuse promptly to make the substitution hereinbefore required, or to pay such royalties and secure such licenses as may be necessary and requisite for the purpose aforesaid, then in that event the United States shall have the right to make such substitution, or to pay such royalties and secure such licenses, and to charge the cost thereof against any money due the contractor from the United States, or to recover the amount thereof from him and his surety, notwithstanding final payment under this contract may have been made.

61. Performance by United States.—Where it is necessary for the Government to perform work as a part of the consideration, an estimate of the cost of such work should accompany the contract. Provision obligating the United States to perpetual maintenance will not be accepted unless it is clearly shown that such obligation can not be avoided without involving unreasonable conditions.

62. Timber cutting, estimates and suggestions by Forest Service.—In the case of lands which are withdrawn under first form, where the

timber from certain areas will be sold, the proceeds of which are to be used for construction purposes, or covered into the reclamation fund, the Forest Service should be requested to submit a report, estimate, and suggestions for the final contract.

63. **Meat, inspection of.**—All meat purchased by the Reclamation Service must, wherever practicable, be "U. S. inspected and passed," in accordance with the act of Congress approved June 30, 1906 (34 Stat., 674), and acts amendatory thereof. All proposals should state that all meat not so inspected and passed may, at the option of the United States, be subject, at the expense of the contractor, to an inspection equivalent to that required by the national meat inspection act of June 30, 1906, and acts amendatory thereof or supplementary thereto, and that all meat not passed under such inspection will be rejected.

64. **Collection charges, when paid in advance.**—As a general rule grazing leases, leases of electric current, and other collection contracts, where the annual amount involved is less than \$200, should provide for the collection of the charges in advance, and for the termination of the contract upon 10 days' notice unless the charges are paid within a fixed period after the due date. The provision for advance payment so inserted in the contract should be rigidly enforced, as considerable difficulty has been experienced with small debtors to the Government, the conditions generally being such as not to warrant a suit to enforce collection.

65. **Contracts with railroad companies.**—Contracts with railroad companies for crossings should embody a definite plan of construction to assure the safety of the railway traffic, the cost to be paid by the United States. The railroad company should be free to take measures necessary to maintain the safety of the crossing under such conditions as may arise, including changes of grade; but the railroad company should not be empowered to stop the flow of water in the canals for a longer time than is reasonably necessary. The United States should be obligated to pay the reasonable cost of maintaining safety at the crossing in the original status or by any changes necessitated by natural phenomena or by law, but it should not be held to pay any further expense connected with the crossing that the company may care to incur, nor can the United States accept or be bound by the clause appearing in many standard railroad forms whereby the licensee assumes and absolves the company from liability for any loss or damage to persons or property that may occur by reason of the operation or use of the crossing. If the company is unwilling to contract on these terms, condemnation proceedings should be recommended. (See Circular Letters Nos. 282 and 332, 1914, giving standard form.)

66. Animals, hire of.—In contracts for the hire of animals the following article should be inserted:

The United States agrees to exercise ordinary care while the animals are in the possession of the Government; but it is expressly understood that the Government will not be responsible for the loss of or injury to said animals on account of any live-stock diseases or any other cause. (See Animals, hire of.)

67. Referees not allowed.—No provision shall be made in any contract which would require the Government to submit its affairs or acts to the judgment of any individual or organization.

68. Release.—Whenever required a release signed and sworn to before a notary public should be executed on Form 7-292 by the contractor and filed with the engineer before final payment is made.

69. Equipment, contractor's refund of freight charges on.—Under contracts with various railroads the service is entitled to refund on contractor's shipments of materials, supplies, and equipment from the projects the same as on shipments to the projects. Project managers, wherever possible, will secure copies of expense bills for shipments to projects and copies of waybills for shipments from the projects as soon as convenient after the shipment is made. A close watch should be kept on such shipments in order that the refunds to which the service is entitled may be claimed. Ten cents each may be paid to railroad agents for making copies of such expense and waybills. These copies should be transmitted promptly to the chief of construction for preparation and presentation of claim for such refund.

70. Estimates, contract.—Sale or voluntary transfer or assignment of a contractor's business will not transfer interest in contracts with the Government (Rev. Stat., 3737) and all estimates and payments should be made to the original contractor. In case of involuntary assignment or bankruptcy of contractor all questions of payment should be referred to the Washington office. Contract estimates dated subsequent to the date of expiration of the time limit of the contract, including the latest formal extension thereof, must be accompanied by a statement from the project manager as to whether the work under the contract has been completed, and if so, the date of completion. This information is essential for the preparation of the papers for presentation to the auditor, and in order that proper deduction of liquidated damages or other charges may be made or the lack of necessity therefor shown. All estimates of work done under construction contracts should be forwarded to the Washington office promptly after the first of the month, with three memorandum copies in each case. Project managers should require constructing engineers and inspectors to furnish the data for the estimates as soon as possible after the last day of the preceding month, and the

estimates should be prepared immediately. At best there will be a delay in the receipt of the warrant. The average length of time for the mail to come from the field to Washington is four days. Assuming only one day for examination and registration in the Washington office, and 5 days for examination, certification, and issuance of the warrant in the Treasury and four or five days in transmission of warrant to the contractor through the mails, there is a necessary minimum period of approximately 15 days required, which, if increased by the correction of errors or securing additional information, may embarrass the contractor and seriously handicap the work. Payments are made on contract claim, Form 7-442 (short), and Form 7-444 (long).

71. Appeals.—Appeals to the Secretary on the part of contractors from decisions of the director or the chief of construction must be:

(a) Limited to specific points definitely outlined and submitted in writing, and, so far as possible, corroborated by the records of the Reclamation Service.

(b) Restricted to questions involving the legal interpretation of the contract or to charges attacking the integrity of officers of the Reclamation Service. The decision of the director or the chief of construction on questions of fact (other than such as involve the integrity of officers of the service), or engineering, or technical details shall be final.

The Secretary may, in his discretion, allow the contractor or his attorney opportunity to be heard orally, but the points to be presented must be submitted in writing not less than 10 days in advance of the hearing, which shall be had at such time and be confined to such specific points as the Secretary may determine. (Secretary, Feb. 26, 1909.)

72. Sections 3709 and 3744, Revised Statutes, compared.—Section 3709 (p. 503) refers exclusively to the competition which is to be secured through advertising, whenever there does not exist a public exigency requiring immediate delivery or performance. Section 3744, Revised Statutes (p. 504), refers exclusively to the form of the agreement.

73. Executory contracts.—Section 3744, therefore, affects only such contracts as are to be performed in whole or in part in the future, or are continuing and require payments to be made from time to time—that is, such as are known technically as executory contracts.

74. Advertising, when not required.—In addition to a case of exigency advertising is unnecessary under circumstances where there can be no competition. (3 Comp., 175 and 470.)

75. Invalid agreement, payments under.—When there is an invalid agreement, written or oral, under which work has been done or material delivered, the party is entitled, upon a contract implied by

law, to a fair price therefor, which may be assumed to be that stipulated in the invalid agreement (*Clark v. U. S.*, 95 U. S., 539; *St. Louis Hay & Grain Co., v. United States*, 191 U. S., 159, 163; *United States v. Andrews*, 207 U. S., 229, 243).

76. Informal contract delivery.—Contracts or agreements completed immediately upon execution, and upon which nothing thereafter remains to be done, need not be reduced to writing and filed, as provided in section 3744, Revised Statutes, but may be less formal, and may be made by written proposal and acceptance thereof. The word "immediately" as here used is to be interpreted in a reasonable manner, and from all the attending circumstances in each particular case. If the supplies are to be delivered immediately, that is, if the shipment is to be made within, say, 30 days from receipt of order, or if the services are to be performed at once, an informal agreement will be sufficient. Otherwise, or if the services or deliveries are to be continuous, formal contracts must be entered into. See use of special contract, Form 7-707, page 97.

77. Service antedating contract.—No payment can be made under a contract for a period prior to its date. As to such prior claims, vouchers should be prepared covering the expenditures for such period, accompanied by a certificate from the officer stating fully the facts as to the absence of a written contract, as to the actual receipt of the services or material during the period antedating the contract, and as to the price agreed upon.

78. Breach of contract by United States.—Payment of the judgment, costs and interest thereon, in a suit against the United States for damages for breach of contract, caused by the construction of irrigation works, can not be made from the reclamation fund nor by the Department of Justice, but must be paid under a specific appropriation therefor by Congress. (Compt., Jan. 31, 1913. See act of Apr. 27, 1904, 33 Stat., 422.) For payment of judgment in condemnation suits see *Lands, acquisition of*, par. 45.

79. Interest on collections.—Collection contracts, in the absence of exceptional circumstances, which should be fully set forth, must contain provision for interest at not less than 6 per cent per annum on all overdue payments.

80. Extra work and material, payment for.—Where a contract provides that in case of discrepancies between the specifications and the contract, the matter shall be referred to the Secretary of the department making the contract, and the contractor agrees to abide by his decision in the premises, the construction given by the Secretary is final and conclusive. Where a contract provides that changes must be made by a prescribed method and approved by the Secretary, the contractor can not recover for extras not ordered in the manner prescribed. (*Plumley v. United States*, 226 U. S., 545.)

CONTRACTS, SUSPENDED, RECORDS OF.

1. **General.**—When any contract has been formally suspended for any reason, the project manager is authorized to take over the completed and uncompleted portions of the work and take possession of all buildings, machinery, tools, appliances, animals, materials, and supplies used on the work or delivered by or on account of the contractor for use in connection therewith as provided by the specifications. As final settlement in such cases may have to be made through the courts, it is essential that complete records of all pertinent transactions be preserved in detail and that they be of a character that may be relied upon as proper evidence.

2. **Probability of suspension.**—While work under a contract is progressing, the records should be so kept that the engineer may judge whether the contract is being conducted at a profit or at a loss, in order that the Government may be prepared to take up the work promptly in case of default if the contractor can no longer continue, or if it becomes necessary for the Government to terminate by suspension the right of the contractor to proceed under the contract.

3. **Records.**—Accurate, clear, and concise records should be kept of expenditures made by the service in completing work of a contract which has been suspended by the United States. Legal action may be necessary in order to effect a settlement, and it is essential to keep such records in order to support the Government's claims in court.

4. **Accounts, keeping of.**—In order that proper feature accounts may be kept for work so finished by the Government, and that the accounting records may also show the amounts expended by the service for completing the work chargeable to the contractor, a reorganization of the accounts relating to the contract will be necessary at the time of the suspension. Detailed instructions in this connection will be found in the accounting regulations and instructions from the Washington office.

5. **Inventories.**—Immediately on suspension of a contract a board should be appointed to list and appraise the contractor's plant, equipment, animals, etc., and the materials and supplies contained in the contractor's storehouses, mercantile stores, and mess houses. Such equipment, material, and supplies do not become the property of the United States as a necessary result of suspending the contract. The United States will, however, take possession of such property

for use in conducting the work for the contractor. A provision in the general conditions of the standard specifications for construction contracts creates a special lien against any property of the contractor taken into the possession of the United States to secure the claims of the United States for costs in excess of the contract cost. A complete itemized inventory, showing the appraised value of everything transferred should be prepared in triplicate and one copy given to the contractor, one sent to the Washington office, and the other retained for the project files. Each copy should be signed by the members of the board of appraisal. Distinguishing marks and descriptions should be noted on the list for identification purposes. It is desirable to have this inventory made by a board of three persons. If possible, the contractor should be represented on the board. The inventories should not in general be made a part of the regular project accounts, as the Government in no way binds itself for their value. Supplies in mercantile stores or mess houses that are to be continued in use may be taken over and the contractor credited with the value thereof. (See also Contracts, pars. 35 and 36.)

6. Charges against contractor.—In charging against the contractor the cost incurred by the United States in excess of the contract price in completing the contract either by Government forces or by employing other contractors, such charges should include only those items of expense incurred by the United States in the completion of the work, which would not have been so incurred if the contractor had continued to carry on the work as provided in the contract. Any expenses that would have been incurred by the United States as overhead charges or otherwise if the contractor had continued with his work should not be charged against the suspended contract.

7. Inventories, final.—When the work covered by a suspended contract is completed, full and complete inventories of plant, equipment, animals, unused materials, and supplies on hand should be prepared. A copy of this inventory, with remarks as to condition and possible value of each item thereof, noting each item which is also included in inventory taken upon suspension of contract, should accompany the final report to the Washington office, but should not be taken up in the report or on the books as a credit to the contractor.

8. Reports.—In order that the Washington office may be in possession of necessary information in regard to the status of defaulting contractors' accounts, compiled in a concise and uniform manner, a report, Form 7-637, should be prepared and transmitted monthly in each case. The first report should be rendered promptly after formal suspension and cover all work done to date of suspension, and succeeding reports should be cumulative so that all reports

taken together will furnish a complete record of progress to date. In case the cost of the work when completed exceeds the original contract price, these reports should serve as a basis of information and evidence on which to establish a legal claim against the contractor and his sureties to recover the excess of cost to the United States over the stipulated contract price. For this reason too much stress can not be placed on the necessity of accuracy and completeness in their preparation. The form is used as a summary of the credits and debits accrued to the date of the report.

9. Sureties of defaulting contractors.—Sureties may be permitted to complete work under suspended contract, and it is desirable that such sureties execute formal contract with the United States for completing the work, thereby becoming in fact the contractor. Should the surety perform any work before making formal arrangements approved by the director he does so as the agent of the contractor and all payments for such work must be made to and in the name of such contractor.

DISTRICT COUNSEL, DUTIES, ETC.

1. **Duties.**—The district counsel has charge of all legal work in his district. He shall advise the project officers in his district, or the chief of construction in the case of the district counsel in charge, Denver, Colo., upon legal matters, and also confer with the project officers, or the chief of construction in the case above stated, upon administrative matters when so requested by them or so directed by the commission. He shall approve, as to form and legal sufficiency, all contracts executed within his district. The district counsel should promptly advise the chief counsel of any new and important laws of the States in his district or of any decisions which would be of interest in connection with the work of the service and also of any other decisions or laws of special importance outside of their local districts or courts which might have an important bearing upon the work of the service.

2. **Correspondence.**—Correspondence by the district counsel with the Washington office shall be directed to the chief counsel and such correspondence with the Denver office shall be directed to the assistant chief counsel or to the district counsel in charge.

3. **Land titles.**—All correspondence respecting land titles shall be addressed to the district counsel in charge of titles, whose opinion will be final and binding, except in case of appeal from his ruling, which may be taken to the chief counsel.

4. **Semiannual reports.**—On June 30 and December 31 of each year, semiannual reports should be made by each district counsel in the field to the chief counsel. Such reports should reach the Washington office not later than August 31 and January 31, respectively, and should give a summary of the work done by him during such period, including such items as the number of contracts handled, with amounts involved, and the lawsuits in which he has assisted, with a short statement of the status of each suit at the date of the report. The report should be of sufficient fullness to give the chief counsel all essential information as to the work done.

5. **Legal phases of engineers' reports.**—Before being sent to the Washington office all reports of engineers and project managers containing any discussion concerning legal questions or mixed questions of law and fact should have attached an opinion by the district counsel as to such legal matters. The district counsel if not in accord with any legal statement made therein, shall make a separate report to the chief counsel, containing his criticism thereof.

6. **Accrued and uncollected bills.**—Each project manager will submit to the district counsel assigned to the district within which the project is situated, a statement, to be compiled at the close of business each month, giving a list of debtors whose accounts have remained outstanding and uncollected for the three months immediately preceding. Copies of such statements are to be transmitted to the Washington and Denver offices. The district counsel will as promptly as possible after the receipt of such statement investigate the financial status of each debtor shown thereon. After such investigation he will advise the project manager of the best method in his opinion to be pursued toward effecting collection in each case. The district counsel will in all accounts remaining outstanding and uncollected for a period in excess of six months report specially thereon to the chief counsel with copy to the chief of construction giving all relevant information and data, together with specific recommendation as to procedure in each case.

7. **Delinquent water-right charges.**—Where a water user is delinquent in the payment of his water-right charges, the facts in each case will be reported by the project manager to the district counsel on Form 7-279, with a copy to the Washington office. As promptly as possible after receiving such reports from the project manager the district counsel will proceed to make collection of the delinquent amounts, advising the project manager immediately of each collection made. Cases as to which the district counsel after full investigation of the facts is of the opinion that cancellation or suit for collection should be had, should be returned to the project manager with his opinion and recommendation as to the action which should be taken. The project manager will thereupon forward such cases together with copy of the district counsel's report thereon, to the Washington office, at the same time indicating the cases, previously reported by copy of Form 7-279, in which collection has been made

DRAINAGE, HOW CHARGEABLE.

Drainage obviously necessary during the construction period and carried out before public notice is issued should be charged to the building cost of the project, but drainage work carried out after public notice issues should be charged to supplemental construction under section 4 of the act of August 13, 1914 (38 Stat., 686) in the case of those subject to that act, and as operation and maintenance against the other water users. (See Supplemental construction, p. 295, and Operation and Maintenance.)

EIGHT-HOUR LAW.

(See also Contracts, par. 57.)

1. Act of June 19, 1912.—The act of June 19, 1912 (37 Stat., 137; p. 508), requires that every contract made on behalf of the United States, which may require or involve the employment of laborers or mechanics shall contain a provision prohibiting employment of any laborer or mechanic upon such work for more than eight hours in any one calendar day, and providing a penalty for each violation of such provision. The Secretary by order of October 15, 1915, directed that in all contracts within the scope of the act, including those in which there is doubt whether the eight-hour law is applicable, the following provision should be inserted:

It is expressly stipulated and agreed, in accordance with the provisions of the act of June 19, 1912 (37 Stat., 137), that no laborer or mechanic doing any part of the work contemplated under this contract, in the employ of the contractor, or any subcontractor contracting for any part of the work contemplated to be performed hereunder, shall be required or permitted to work more than eight hours in any one calendar day upon such work, under a penalty for each violation of this provision of \$5 for each laborer or mechanic for every calendar day in which he shall be required or permitted to labor more than eight hours upon said work. It is further understood and agreed that any officer or person designated as supervisor or inspector of the work to be performed hereunder, or to aid in enforcing the fulfillment of the provisions hereof, shall, upon observation or investigation, forthwith report to the proper officer of the United States all violations of the provisions of the act of June 19, 1912, together with the name of each laborer or mechanic who has been required or permitted to labor in violation of this stipulation, and the day of such violation, and the amount of the penalties imposed under this stipulation shall be withheld from any moneys due or thereafter becoming due under this contract, for the use and benefit of the United States, by the officer or person whose duty it shall be to approve the payment of moneys due or thereafter becoming due hereunder, whether the violations of the provisions of this contract are by the contractor or subcontractor. (Secretary's Order, Oct. 15, 1915.)

2. Reports of violations.—Executive order dated September 19, 1906, makes the following requirements regarding reports of violations of the eight-hour law:

I. All departments of the Government under the supervision of which public works are being constructed are hereby directed to notify the representatives stationed at such public works to report at once to their respective departments all cases in which contractors or subcontractors on works now under construction have required or permitted laborers or mechanics in their employ to work over eight hours in any one calendar day.

II. All Government representatives in charge of construction of public works are further directed that it is part of their duty to report to their respective departments

each and every case in which laborers or mechanics are required or permitted to work over eight hours a day on the works under supervision of such Government representatives. Wherever reports showing work in excess of eight hours a day are received by any department they are to be referred to the Department of Justice for appropriate action.

III. All departments of the Government under the supervision of which public works are being constructed by contract are further directed to have their respective legal officers prepare and forward to the President a list of such statutes and executive orders as have a direct bearing on contracts for the construction of public works, and with which bidders on such works should be made acquainted.

The Attorney General of the United States has construed the eight-hour law to refer to eight hours of effective labor which may be performed continuously or at different times during the 24 hours so long as the total of eight hours in any one calendar day is not exceeded.

The Attorney General has also held that the engineers should report violations of the eight-hour law by contractors or subcontractors and also make deductions of \$5 per day per man for each violation, as required by the Act of June 9, 1912.

To insure uniformity in the reports of violations transmitted to the department in pursuance of the Executive order of September 19, 1906, all such reports should be forwarded each month by project managers to the Washington office in the form of a brief letter of transmittal with a list in duplicate in the following form:

State of....., ...Project.
 Name of contractor.....
 Name of subcontractor (if any).....

Number of employees.	Class (foreman, laborer, etc.).	Number of days employed in month.	Number of hours of labor per day.

In every case in which labor in excess of eight hours in any calendar day is required or permitted full record should be kept of the same and of all circumstances, with the names of persons who can give testimony as to the facts in order that the engineer may be able to support his deductions from the contract estimates or other payments. He should keep a complete record of all the circumstances or conditions which might be regarded as a basis for a claim for release of such deductions in connection with the proceedings contemplated by the Act of June 9, 1912.

EMERGENCY QUOTATION.

Where a public exigency exists requiring immediate delivery or performance which will not permit advertising, the requirement of advertising may be omitted, but in all such cases a quotation should be secured from the merchant before placing the order. This may be done by presenting a written request to him describing the articles wanted, quantity, unit of measure, etc., and requesting him to note thereon the price to be charged and signing same. Such quotation may also be secured over the telephone and record made of same on the emergency quotation form and subsequently signed by the bidder. It will seldom be necessary to resort to this practice, however, as even in the case of an actual exigency several quotations can usually be called for at short notice and full competition secured. (See also Advertisements and bids; Competition; Purchasing.)

ENTRIES, RECLAMATION HOMESTEAD.

For instructions see General Reclamation Circular approved May 18, 1916.

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ENTRYMEN, EMPLOYMENT OF.

Upon the question whether homestead entrymen will be permitted to leave their claims and work as laborers on reclamation projects without subjecting their entries to contest for failure to maintain continuous residence, the Assistant Attorney General held, in an opinion approved by the Secretary of the Interior, December 31, 1906, as follows:

There is, however, no reason why the entryman may not engage in such work without forfeiting by his temporary absence from the land his homestead right. The rule is well established by a long line of decisions that *after a residence has once been established in good faith*, temporary absence from the land for the purpose of earning a living, not inconsistent with an honest intention to comply with the law will not of itself constitute abandonment, but will be considered as constructive residence upon the land, especially where good faith in all other respects is manifest. The entryman must, however, evince by his acts an honest intention to maintain a permanent residence, and to make the land a home to the exclusion of one elsewhere. (*Dammon v. Sinclair*, 26 L. D., 210; *Brandon v. Tuller*, 28 L. D., 485.)

The rulings of the department in this respect have been exceedingly liberal, and as the question of good faith and intention of the entryman must be determined from the facts in each particular case, it is not advisable that the department should determine in advance what acts, or what conditions would justify temporary absences from the land by an entryman.

ENTRYMEN, HOMESTEAD, LEAVES OF ABSENCE FOR.

For instructions see General Reclamation Circular approved May 18, 1916.

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EXCESS LANDS.

1. **Excess private lands.**—A person who desires to secure the benefits of the reclamation act, and who owns land under one or more projects in excess of 160 acres, is required to dispose of the excess so that when water-right application is made he does not hold more than 160 acres of irrigable land. Under some projects owners may be required to reduce their holdings to such less area as may be fixed by the Secretary of the Interior. In order to insure this adjustment it will be necessary for such persons to agree to the subdivision and sale of their excess lands so that they shall not be held in tracts in excess of the area so fixed. In like manner, when the Secretary prescribes such agreement as a condition precedent to construction, owners who are not qualified to perfect water rights under the reclamation act must, in order to secure the construction or authorization of a project or unit of a project, agree to dispose of their excess lands to qualified applicants under such terms as may be established by the Secretary. In general terms owners are required to convey the lands in trust to or empower a water-users' association or other trustee duly designated with power to sell the same at public auction in case the land has not been sold to parties qualified to apply for a water right under the provisions of the reclamation act, when water is ready for delivery by the United States, or within a reasonable time thereafter as designated by the Secretary. The forms used for this purpose must be approved by the Secretary. It is not intended that there shall be any restriction on transfers by the owners of these lands while so held in trust, even though the purchaser may not himself be qualified to apply for a water right under the reclamation act, but the conditions of the trust and power of sale remain in effect until the acceptance of an application for water right duly made by a qualified holder of the land.

2. **Excess areas in entries.**—Reclamation homestead entries and desert entries coming within the provisions of the reclamation act are subject to the rule of approximation; i. e., when the excess area therein above 160 acres is less than the deficiency would be if the smallest subdivision were excluded it may be included in the entry; where it is greater it must be excluded. (Sec. Mar. 30, 1910, 38 L. D., 513.) In all cases where, under the rule of approximation, the entry contains more than 160 acres of irrigable land, the construction charge will be due from the *actual* area irrigable, and water-right application should show the actual irrigable area.

3. Holding under reclamation laws limited to one farm unit prior to full payment of construction charge.—The last proviso to section 13, of the reclamation extension act is as follows:

That no person shall hold by assignment more than one farm unit prior to final payment of all the charges for all the land held by him subject to the reclamation law, except operation and maintenance charges not then due.

Departmental decision of October 28, 1914, holds that this provision of law does not authorize one who has an entry within a reclamation project upon which all construction charges have not been paid, to acquire by assignment another farm unit upon which the construction charges are not paid in full.

EXPERIMENTAL FARMS.

The Department of the Interior decided on December 18, 1909, that there is no authority of law whereunder money may be taken out of the reclamation fund and devoted to the purpose of constructing buildings and improvements for the use of the Department of Agriculture upon experimental farms. The withdrawal of public lands for such farms and the furnishing of water therefor are, however, proper and may be continued.

FARM-UNIT PLATS.

[For matters relating to surveys of irrigable areas, see Surveys.]

1. **Definition.**—A farm-unit plat is a plat of a township, usually on a scale of 2 inches to the mile, showing farm-unit subdivisions of public lands and the areas, public and private, to be served with water. These plats, after being approved by the Secretary, are photolithographed, and copies are filed in the General Land Office and local land office. They form the official record to which homestead entries and water-right applications must be made to conform. The term farm unit relates only to a tract of public land fixed as a homestead entry under the reclamation act.

2. **Farm-unit area.**—While a project is in course of construction an examination of the soil and of local conditions should be carried on to the end that early determination may be had of the "limit of area per entry, which limit shall represent the acreage which, in the opinion of the Secretary, may be reasonably required for the support of a family upon the lands" entered subject to the provisions of the reclamation law. A board of engineers should be convened for consideration of this important proposition and to make appropriate recommendation relative thereto. At the same time recommendation should be made in case it is deemed advisable to limit the area for which water will be furnished to lands in private ownership to less than 160 acres.

3. **Preparation of plats.**—Upon approval by the Secretary of the areas to be adopted in these cases the farm-units plats are prepared accordingly. Where the farm-unit boundaries do not conform to the regular subdivision lines so that resubdivision surveys are necessary, the instructions for subdivision surveys should be followed closely; and proper diagrams with field notes for the resubdivided tracts should be prepared and accompany the farm-unit plats in order that copies may be filed in the General Land Office. (See Surveys, pars. 27-29.)

4. **Forwarding plats.**—As soon as completed the originals or copies of either preliminary or final plats should be forwarded to the Washington office for examination and approval by the Secretary.

5. **Printing and distribution.**—When approved, all farm-unit plats will be photolithographed and printed in standard form, a sufficient edition being provided to allow of a supply being kept on hand by project managers and at the Washington office, where copies may be procured by intending settlers and others at 10 cents per copy. A set of approved plats is also sent to the water users' association.

6. **Amendments.**—In submitting recommendations for amendment of farm unit plats the diagram submitted should show in red the present arrangement and areas of the farm units to be changed, and in black the proposed amendments.

7. **Conformation of entries.**—Prior to the act of June 25, 1910 (36 Stat., 835; see sec. 5, p. 442), entries could be made on lands withdrawn as irrigable. Such entries were usually made for 160 acres, the maximum limit, and it was necessary for such entrymen to conform their entries to the smaller farm units subsequently established.

8. **Time.**—Farm-unit plats should be prepared as soon as the irrigable acreage can be *definitely* determined, and show the area of public lands subdivided into farm units which it is intended to open to entry and the areas of private lands for which water-right applications may be made. (See par. 10.) If the irrigable area can not be defined it is best to supply water under water-rental contract until the irrigable area can be ascertained. (Sec. 11, act Aug. 13, 1914; 38 Stat., 686.)

9. **Extent of plats.**—The plats should show for each township the lands opened to irrigation, public and private, section and subdivision lines extending only as far as necessary, the remainder of the township being left blank.

10. **Boundaries.**—Boundaries of individual public-land farm units should be shown by solid black lines; outer boundaries of private land areas by broken lines. Individual ownership should not be indicated nor designated by letters, but the total irrigable area of each 40-acre subdivision or land-office lot in private ownership should be shown. Where the land is bounded by a meandered stream the land lines should be run to and follow the meander line thereof as shown on the official township plats issued by the General Land Office. United States reservations should be shown as shaded areas and total and irrigable areas and purposes of reservations noted on the original plats. The purpose of such reservations and irrigable areas, however, will not be shown on the printed edition of the plats except that the outlines of the areas reserved under the town-site acts will be marked. Should there be an agreement for the disposition of State and railroad lands under the terms of the reclamation act, such lands should be given distinctive boundary lines and farm-unit subdivisions should be shown.

11. **Designation of farm units.**—Farm units should be lettered A, B, C, etc. (omitting the letters I and O), beginning at the northeast corner of each section and continuing alternately from right to left and left to right after the manner of section numbers. Where farm units of 10 or 20 acres are made, or where the number of units in the sections exceed 25, each quarter section should

be independently lettered. Where units include lands in more than one section care should be taken that designating letters are not duplicated in any single section or quarter section. No letter which has previously been used in designating a farm unit within or partly within a section, whether on a superseded plat or in connection with an amended or canceled farm unit, or otherwise, should be again used in designating a farm unit in the same section. When a farm unit amendment is made the designating letter should follow alphabetically the last letter used in the section. Whenever by reason of amendments, or otherwise, the letters of the alphabet have become exhausted in the designation of farm units, the symbols A-A, B-B, C-C, etc., shall be used. Where a unit includes land in more than one township the designating letter, boundaries, and area should be shown on the township plat containing the larger portion of the unit, and the boundaries and designating letter of the unit should be outlined on the adjoining plat without showing the area.

12. Method of showing irrigable acreages.—On farm-unit plats the irrigable acreage for which water-right applications may be made should be tabulated on the margin of the plat for each public-land farm unit and for each separate 40-acre tract or land-office lot of private land. Also a statement should appear on the margin of each plat giving the total number of farm units and total irrigable areas of public, private, railroad, and State lands. Where a unit includes land in more than one township the unit should be counted in the township containing the larger area.

13. Changing permanent irrigable acreages.—After the approval of plats it is often difficult to increase the irrigable acreage for lands which have been entered; accordingly plats showing irrigable acreages should not be submitted for the approval of the Secretary until after careful determination. Amendment of farm unit plats in cases where the change involves less than 10 per cent of the irrigable land in the township may be approved by the director without submission to the department. (First Asst. Sec., Aug. 27, 1914.)

14. Temporary changes in irrigable areas.—The following regulations will hereafter govern in extending relief to water users whose lands are temporarily affected by seepage, alkali, etc., to such an extent as to render them impracticable of profitable cultivation:

(a) The areas thus affected will be temporarily eliminated from the irrigable area and the payment of water-right charges on such areas will be temporarily suspended. Collection of water-right charges on the suspended area shall be resumed when the adverse conditions have been remedied.

(b) Operation and maintenance charges will be collected each year upon the remaining irrigable area.

(c) Applications subject to the reclamation extension act, the installments of construction charges will be collected thereafter upon the remaining irrigable area and shall be computed upon the basis of the portion of the construction charges unpaid at date of acceptance of said act, less the total construction charge on the area temporarily eliminated.

(d) Water-right applications not subject to the extension act the installments of construction charges to be assessed each year shall be computed upon the remaining irrigable area.

(e) When the adverse conditions have been overcome and all or a portion of the area temporarily eliminated again becomes subject to water-right charges, such charges shall be computed each year at the current rates for construction and for operation and maintenance charges applicable to such water right.

(f) Whenever the total amount paid by a water-right applicant shall equal the amount of the construction charge on the total irrigable area less the eliminated areas further collections of water-right construction charges from such applicant shall be suspended. Payments of construction charges shall be resumed whenever any part of the eliminated area is reclaimed or restored.

(g) On or before August 31 of each year the project manager shall report any deductions or increases to be made in the irrigable areas then susceptible of agricultural uses for the several water-right applicants in the project because of changes due to seepage or other conditions. Upon the approval of the Reclamation Service of such increase or decrease, notice thereof in writing shall be served upon the water-right applicant.

(h) The water-right applicant shall be held under obligation to make payment ultimately for the irrigable acreage shown by his water-right application, except as to such part thereof as may be permanently eliminated because found not to be irrigable. When full payment of the construction charge has been made for the entire irrigable acreage covered by the water-right application, the appropriate final papers in regard to the water right for that area shall be issued. (Sec., Aug. 11, 1915.)

15. Amendments, applications for by entrymen.—Every application for amendment of a farm unit should be made in writing, on the approved form duly signed by the applicant, and addressed to the project manager, who will transmit it to the Washington office, with report and recommendation. The General Land Office regards the amendment of the farm unit in such cases by the authority of the Secretary as equivalent to an authorization for a corresponding amendment of the entry. It is desired especially to emphasize the necessity for care in recommending amendments which would allow relinquishment of undesirable portions of farm units, thus leaving

available for reentry areas which are unattractive. It is expected that the general policy of the reclamation law will be followed in all cases so that each farm unit will contain a sufficient area for the support of a family, or that the land released is of such character that it will be taken up either by itself or as part of another tract. Amendments of farm units by the inclusion therein of additional lands will be made only when the entire area of the farm unit as amended represents not more than that acreage which may be reasonably required for the support of a family. If a farm unit contains such an acreage there would be no justification for its amendment by the inclusion of any additional irrigable lands. There is no objection to the amendment of a farm unit by the inclusion of non-irrigable land.

Applications for amendments of farm units entered under the reclamation law which involve the incorporation into the unit as amended of additional land shall be accompanied by a payment per acre of such proportion of the total construction charge assessed against the added land as will leave a balance unpaid per acre which can be liquidated in the same number of installments at the same proportionate rates as remain unpaid on the original area of the applicant. The construction charge against the added area shall be the construction charge announced in the public notices in force at the time the application for amendment of the farm unit is made. Whenever such application is submitted for amendment of a farm unit by the inclusion therein of additional area, a report is desired showing the present status of water-right payments, so that all the facts relative to the failure of an entryman to keep up payments on a smaller area may be considered in connection with his application for an increased area.

16. **Assignments.**—Regulations governing amendments of farm units occasioned by assignments of homestead and desert-land entries are published in General Reclamation Circular approved by the department May 18, 1916, paragraphs 35 to 43, inclusive, as to homestead entries, and paragraphs 125 to 128, inclusive, as to desert-land entries. The project manager will, upon receipt of application for such amendment, if approved by him, prepare diagram showing in different colored inks the old and the new farm units as they will appear on the farm-unit plat involved. The diagram should be indorsed at the bottom:

Cancel Farm Unit, Sec., and substitute therefor Farm Units
..... and, as shown above.

Below this the approval of the project manager should be noted as follows:

Approved (date).....,
....., *Project Manager.*

17. **Application for resurveys.**—Application for resurvey of the irrigable area of a farm unit or private land holding covered by water-right application must be accompanied by a deposit of \$25. The application shall contain a stipulation that, in case it be found in the judgment of the project manager that the irrigable area shown on said plat is incorrect to such an extent as to justify the resurvey, the deposit shall be refunded, but that if such resurvey was not justified, the United States shall retain such amount of the deposit as may be necessary to cover the cost of the resurvey, the balance, if any, to be returned to the applicant.

18. **Fractional acreage.**—Since several items may enter into the non-irrigable areas of farm units and other lands under a project, including canal and railroad rights-of-way, large waste ditches, high lands, flooded areas, and lands otherwise unfit for cultivation, the exact acreage of which may be difficult and costly to determine, irrigable acreage should be given to the nearest tenth of an acre, excepting cases where, in the judgement of the engineer in charge, land values will justify a closer approximation to the nearest five-hundredth of an acre. Decimals should not be extended beyond two places.

19. **Official areas.**—When the irrigable area exceeds by 2 per cent or more the official area shown on the Land Office plat, the actual irrigable area should be noted, preceded by a plus sign. When the difference is less than 2 per cent the official area should be used. (Sec., Mar. 23, 1912, case of J. E. Enman, Klamath project, Oregon.)

20. **Topographic features.**—Meandered streams, lakes, etc., affecting boundaries should be shown on the plats, and also the lines of main canals and main laterals. The location of principal towns and railroads should also be shown.

21. **Areas to be excluded.**—In cases where the boundary of a farm unit is the line of a railroad or of canal having right of way granted by act of Congress, or where the right of way constitutes an easement only, the total area of the unit should be computed to the center line of the right of way, but the area of such rights of way included within the farm unit should be excluded from the irrigable area. No deduction from the irrigable area subject to water-right charges will be made on account of right of way for highways or irrigating ditches. (39 L. D., 2.) Under the railroad right-of-way act of March 3, 1875, the width is 100 feet on each side of the center line. The general irrigation right-of-way act of March 3, 1891, provides for right of way to the extent of the ground occupied by the water of the canal and its laterals, and 50 feet on each side of the marginal limits thereof.

22. **Rights of way under act of Congress.**—Where right of way for canals or laterals has been reserved of indefinite width, as under the

act of August 30, 1890 (26 Stat. L., 391), the United States will determine the width to be required, providing fully for future operation and maintenance, and in the case of old canals acquired by the United States, giving due consideration to the determination of the former owners.

23. Relinquishment of part of farm unit.—A homestead entryman subject to the reclamation law may relinquish a part of his farm unit and have the construction payments on the relinquished part credited first, upon the portion of the charges for operation and maintenance then due against the relinquished area, and the remainder on the construction charges against the retained part, provided that the amendment in question may be allowed without jeopardizing the interests of the Government in the collection of the charges against the portion of the tract relinquished. For procedure in this connection see General Reclamation Circular approved May 18, 1916, paragraphs 112-115.

24. Assignment of credits.—Where credits for payments in case of the relinquishment of all or part of an entry are transferred the assignment clause as outlined in paragraph 96 of General Reclamation Circular of May 18, 1916, should be written in at the bottom of the new original water-right application, and on the copy forwarded to the Washington office (Form 7-864) a statement should appear as follows:

Original entryman.....
water right application Serial No.....
assigned credits in pursuance of paragraph 96, General Reclamation Circular, May 18, 1916.

The Reclamation serial number is to be inserted. (See Water rights par. 10.)

82855-17-16

FENCING ON CANAL RIGHT OF WAY.

Authority to construct fences should be allowed only under carefully drawn conditions. Fencing or interfering with the use and occupation of rights of way reserved to the United States by the act of August 30, 1890 (26 Stat., 391), or obtained in other ways, is illegal and proper action will be taken in the courts when such action is taken or attempted. For full instructions see Structures over ditches and canals; see Contracts, paragraphs 52-54.

GOVERNMENT FORCES.

Work on reclamation projects shall be designated in all cases as done either by contract or by Government forces. The expression "force account" should not be used, as it has no well-defined meaning, in some places being used to designate work done by the employment of men and teams, and in other cases to work done by contractor's forces outside of the terms of the contract, which is also sometimes referred to as extra work.

INJURIES TO PROPERTY.

1. **Causes.**—Injuries to property from the operation and maintenance of an irrigation project, may be due to (a) actual negligence in the construction or management of the irrigation system, or to (b) unavoidable causes in which the element of negligence or tort does not appear.

2. **Liability of the United States.**—The United States can not be sued without its consent, and it has never permitted itself to be sued in any court for torts committed in its name by its officers. (*Hill v. U. S.*, 149 U. S., 593.) A tort is defined by Pollock as being "an act or omission causing harm which the person so acting or omitting did not intend to cause, but might with due diligence have foreseen and prevented." It is also defined as a private or civil wrong or injury, independent of contract. A negligent act is a tortious act. The United States is never liable for damages arising from the negligent, tortious act of an employee. (*Bigby v. U. S.*, 188 U. S., 400.)

3. **Care to avoid injuries.**—The degree of care and watchfulness exercised by the employees of the United States in the operation of a reclamation enterprise should be such that, in any case of claim for damage, it may not be said that negligence existed to such an extent that a private corporation would be liable. For the guidance of those in charge of operation and maintenance, the general principles governing the liability of the owners of private irrigation systems are stated in the following paragraph.

4. **Liability of private irrigators for negligence.**—The courts have held generally that private irrigators are liable for damages due to negligence or unskillfulness in construction or in operation and maintenance of the works. They must keep the works in good repair and are liable for all damages caused by failure to do so. An owner of a private irrigation system is not an insurer against all damage from the system without reference to the question of negligence, but is liable only when negligent. He must prepare to meet only such emergencies as may reasonably be expected to arise in the course of nature. He is not required to prepare for storms of such unusual violence as to surprise cautious and reasonable men. (Long on Irrigation, ed. 1916, Chap. VI.)

5. **Liability of the United States under implied contracts.**—Where, however, private property is taken for the benefit of the United States, as, for instance, by cutting a canal and turning out the water to the detriment of private rights, so that more serious damage elsewhere

may be averted, then a contract to make compensation for the resulting damage is implied. In such cases if it is practicable, and there is time to do so, the amount of damage may be agreed upon with the landowner, and a contract may then be executed. If the damage so caused can be reduced or entirely eliminated by the Reclamation Service making repairs, and such course is practicable, written permission so to do, with a release of all claims for the injuries suffered, shall be secured from the landowner, the repairs made and the cost thereof charged to operation and maintenance of the project. In getting such written permission the landowner's attention should be invited particularly to the fact that by giving the permission he waives all claim for damages because of the injury done.

6. **Payment for injuries.**—The amount of damages under an implied contract being undetermined or unliquidated, it was necessary formerly to have the same adjudicated in the courts. (*U. S. v. Wm. Cramp & Sons Co.*, 206 U. S., 119; *William L. Miller*, 17 Comp. Dec., 810.) The sundry civil appropriation acts of March 3, 1915 (38 Stat., 859), and July 1, 1916 (39 Stat., 262), provide, however, for appropriations to pay "damages caused to owners of lands or private property of any kind by reason of the operations of the United States, its officers, or employees, in the survey, construction, operation, or maintenance of irrigation works, and which may be compromised by agreement between the claimant and the Secretary of the Interior." So long as this provision is retained in the annual appropriation acts, the Secretary of the Interior will have the power to adjust claims for damages to the lands or property of others by reason of the operations of the United States. The authority to adjust such damages applies as well to claims arising prior to March 3, 1915, as subsequent thereto. (*D. W. Scott*, Comp. Dec., June 15, 1915.)

7. **Settlers, property of, protection from fire, etc.**—In the operation and maintenance of projects when it becomes necessary to perform work that may result in damage to the property of settlers extreme precaution should be taken. In burning of weeds from canals, a sufficient number of carefully instructed employees should be assigned to the duty to prevent the spread of fire. They should be provided with suitable devices for extinguishing fires when necessary for safety, or for protecting the burning piles of weeds from being blown about. All such fires should be kept under ample guard until burned out and extinguished. Glowing embers or hot ashes should under no circumstances be left. The service should exercise the utmost care to prevent loss from the necessary activities in carrying on the work. The project managers should take every possible precaution to protect the interests of the settlers and, as opportunity arises, try to arouse their interest in the establishment and maintenance of fire-guards.

LANDS ACQUIRED UNDER THE RECLAMATION ACT, SALE OF.

1. **Recommendation to director.**—The act of Congress approved February 2, 1911 (36 Stat., 895; see p. 446), provides for the sale of lands acquired under the reclamation act. Upon the determination that any such lands are no longer needed report and recommendation should be made to the Washington office with statement as to any conditions which should be incorporated in the conveyance. Not less than three names should be submitted for appointment as a board of appraisers, one of whom should be an employee of the Reclamation Service, one should be chosen by the water users' association or irrigation district, if any, and the other a disinterested person familiar with real estate values in the locality where the lands are situated. The recommendation should also cover the rate of compensation for the members of the board who are not employed by the United States and the limit of time during which such compensation may be allowed, the necessary advertising, and suggest a date on which the sale should take place. The report of the appraisers should be promptly forwarded to the Washington office.

2. **Action upon approval of appraisal.**—If the appraisal be approved authority will be transmitted for publication of advertisement of sale, fixing the date thereof; and also authority for the employment of an auctioneer to sell the property. After the sale has been made, report thereof should be made to the Washington office, with full name and address of the purchaser, and recommendation for conveyance of the property by the Secretary of the Interior.

LANDS, ACQUISITION OF.

1. Authority.—Section 7 of the reclamation act authorizes the Secretary of the Interior to acquire, either by purchase or condemnation, any property rights necessary to carry out the provisions of the act, payment therefor being made from the reclamation fund. This includes authority to purchase improvements of entrymen. Where an irrigation system already constructed and in operation may be utilized in connection with a greater system to be constructed by the United States, its purchase for such purpose comes within the purview of the reclamation act. The reclamation fund can be used only, however, for the purchase of lands and rights necessary for the construction and operation of irrigation works within the territorial limits of the United States. (33 L. D., 391.) It is preferable to acquire all such rights by purchase rather than by condemnation proceedings if reasonably favorable terms can be obtained.

PURCHASES.

2. Title in United States before construction.—The requirement of the department that construction shall not begin on any land until the title therefor is in the United States, save in exceptional cases where special authority is given by the Reclamation Commission, makes it necessary to take steps for the acquisition of such rights far enough in advance so that the title to lands needed may be obtained before it becomes necessary to begin work. The importance of this matter requires that negotiations should begin at the earliest practicable date, and be expedited at every stage. In order to accomplish this it is necessary that the surveys upon which land descriptions are to be based be made as soon as the locations can be determined. (See pars. 14 and 15.) Contracts can not be negotiated until final descriptions have been furnished and as such negotiations necessarily require considerable time, it is the duty of engineers to furnish the district counsel data sufficiently in advance to afford reasonable time for securing signatures to contracts.

3. Appraisal.—Where land or the improvements on land are to be purchased by the United States, and the expenditure will be in excess of \$500, the property to be purchased shall be appraised by a board of two members, one member being a person nominated by the board of directors of the water users' association or irrigation district to act in that capacity, and the other member being the project manager or

some one designated by him for the purpose. The board shall fix a maximum valuation, and the price named in the contract subsequently entered into shall be within such maximum limit. Where there is no water users' association or irrigation district on the project, the project manager should take up the matter with the Washington office, with a view to obtaining a member of the appraisal board other than the employee of the Government. Where the property to be acquired is so remote or inaccessible as to render the expense of an appraisal disproportionately large, or when for any other reason an appraisal seems inadvisable, report and recommendation on the matter should be submitted to the commission for instructions.

4. Negotiations, how to conduct.—Authority to negotiate for the purchase of lands and other property rights will be given by the Washington office to the person designated to act, and the negotiations should be made as representing the Secretary of the Interior for and on behalf of the United States. Before negotiations for the purchase of any tract are begun, it is important to learn whether the land has been offered for sale, and at what time and price; also what price the present owner paid for the land. If a fairly reasonable price can be agreed upon the whole matter should be reduced to the form of a written agreement to sell. In all such negotiations, the owner should be informed that he will be required to furnish an abstract of title, to procure and have recorded such assurances of title, affidavits, or other instruments as may be necessary to show clear, unincumbered title in him, and subsequently to have the abstract extended to include all such instruments and the transfer to the United States, unless the contract shall provide otherwise. But these requirements may be waived when deemed advisable for the interests of the Government.

5. Agreement, when to transmit.—Immediately after its execution the agreement to sell should be forwarded to the Washington office for approval in accordance with the detailed instructions concerning transmission of contracts, and in addition to the papers there required, the agreement to sell must be accompanied by (a) "report on land agreement"; (b) engineer's certificate, and (if the land is described by course and distance) (c) a map or plat thereof; (d) report of appraisal board. (See par. 3.)

6. Report on land agreement.—This report should be made on Form 7-281, and must be accompanied by a map or plat showing the land to be acquired, should state fully the details of fixing the price, indicating price per acre for the different classes of land—orchard, alfalfa, uncultivated, etc.—and the valuation of the improvements separately, houses, barns, etc.

7. Certificate of officer.—Certificate must be made to the effect that the land is necessary for the purposes authorized by the reclamation

act, and that the consideration agreed upon is reasonable, with a definite recommendation that the agreement to sell be approved. This certificate should also contain any other valuable information relative to the transaction not given in the report on land agreements.

8. **Title, acceptance of, procedure for.**—Upon approval of the contract the original will be returned to the project office. It should be at once filed for record in the county where the land is situated and (if so required by the contract) the vendor must at the same time be notified to furnish abstract of title (par. 18), which should be examined by district counsel and the vendor notified to furnish any additional papers found necessary to show clear title. Abstract and related papers should then be submitted, with opinion of district counsel on the title, in duplicate, to the district counsel in charge of titles for his consideration and opinion. The opinion of district counsel should state when the taxes for the current year become a lien according to the State statute. If on examination by the district counsel in charge of titles the title is not found to be satisfactory the papers will be returned to the district counsel for further assurances of title in accordance with the opinion of said district counsel which will accompany the papers. If, in the opinion of the district counsel in charge of titles, satisfactory title is shown, the following steps will be taken:

(a) The deed executed and recorded.

(b) Abstract extended to cover the deed and any further assurances of title required by opinion of the district counsel in charge of titles.

(c) Payment of purchase price made by local fiscal agent.

(d) All title papers transmitted with voucher through the Washington office to the auditor. (See par. 9.)

9. **Title papers.**—Title papers are (a) agreement to sell (see pars. 11-17); (b) abstract (see pars. 18-22); (c) recorded deed, with copy for Washington office (see pars. 23-24); (d) opinions of district counsel and the district counsel in charge of titles; (e) possessory certificate (see par. 25); (f) any additional papers not incorporated in the abstract, necessary to show clear title.

10. **Land purchase records.**—A full and complete record of all land purchases should be kept in each project in a permanent volume, using for this purpose loose-sheet Form 7-644.

11. **Agreement to sell, execution of.**—Agreement to sell (Form 7-276) should be executed with the owner, or with a trustee under a power in a deed, or with a person duly authorized by a power of attorney from the owner authorizing him to do so, or with an executor having such power under a will. Where the agreement to sell is made with any person other than the owner a certified copy of the instrument conferring the power to so act must accompany the contract.

When the agreement to sell is made with the owner it must indicate whether the owner is married or single, and if married, both husband and wife must join, except where the local laws, or the conditions under which the property is held, do not require it. It is better, however, to obtain in every case the signature and acknowledgment of both husband and wife. (See Options.)

12. **Administrators and executors.**—An administrator or an executor without a power to sell in the will has no authority to make a contract for the sale or conveyance of land or of a right of way thereon. In case of the death of the owner without a will, the real estate descends to the heirs; if he dies leaving a will, the real estate goes to the devisees, subject in both cases to the payment of debts of the decedent. The heirs, or devisees, must all join in the agreement.

13. **Minors and guardians.**—Neither the guardian of a minor nor the guardian of an insane person has a right to contract to sell or convey the real estate of his ward without special authority from the proper court.

14. **Conditions and limitations.**—Special conditions and limitations may, when necessary, be added to the printed forms of agreement in reference to possession of premises, growing crops, etc., pending conveyance, but these conditions should be avoided as far as possible, and the time limit of the contract should be fixed with reference to these matters. Ample time should be given in the agreement to sell for the preparation of an abstract of title and for the consideration of the same by the district counsel in charge of titles and officials at Washington, D. C. It should not be dated prior to being signed and acknowledged by the vendor. The time limit for the approval should be not less than two months, and in the case of large purchases or where unusual conditions are involved this time should be not less than four months.

15. **Description.**—In all agreements to sell, the description of the land should be exactly as it is to appear in the deed to be subsequently executed in pursuance of that contract. In both the agreement and deed the description should be written out in full as follows:

The northwest quarter (NW $\frac{1}{4}$) section two (2), township twenty-five (25) north, range fifty-six (56) west, containing one hundred and sixty (160) acres—

In cases where the land can be fully identified by land-office description, and where no irregular tracts are involved, as, for instance, where it can be described in terms of halves, quarters, etc., of 40-acre tracts, it will not be necessary to have a plat of the land accompany the contract.

When the description is given by metes and bounds a plat need not be made a part of the contract, but should accompany it for the information of the Washington office.

If the description by metes and bounds is long and complicated, a plat may be made a part of the contract, in which case the description in the contract may simply show in what subdivision the land is located, together with the section, township, and range, followed by the number of acres.

Descriptions by metes and bounds must in every instance be tied to known public survey corners or permanent monuments, capable of exact identification upon the ground at any future time. Complete descriptions must always be furnished promptly to the district counsel or other person charged with the negotiations for purchase and the preparation of the papers, and before such papers are executed they should be checked carefully by a member of the engineering force and platted accurately in order to make sure that the description given is complete and correct, and the person so checking should indorse the Washington office copy "checked as to engineering data," with his initials.

16. **Right of way descriptions in contracts and deeds.**—In preparing descriptions of rights of way, if the alignment of the center line is not complicated, the usual method is to describe the center line and give the width on either side. The center line should be properly referenced to points on the right of way that will not be disturbed by construction, operation, and maintenance. This method should be used when practicable. Another method consists of a description containing field notes of the bounding lines of the right of way where the width is irregular. In the latter case, where the descriptions are long, there is liability of error in copying and recording, and the method is undesirable. Where the description by metes and bounds would be very long or complicated, the tract should be described in the body of the contract only in a general way and an accompanying plat referred to and made a part of the contract or deed. When the contract is recorded the county records can be made complete in some cases by furnishing the recorder with a copy of the plat which can be pasted into the record book, and in other cases the engineer may secure permission to copy the drawing upon the record. When a plat is used, the field notes should not be placed along the lines on the plat if confusion is likely to result, but the stations should be numbered and the field notes tabulated on the margin. In such cases, it is important to show at each intersection of the right of way boundary with a line of the public surveys or officially established subdivision line the distance on said line to the nearest public survey corner which can be found on the ground. In establishing extra subdivision lines the suggestions in the circular of the General Land Office for the subdivision of sections should be carefully followed. It is important in all descriptions of right of way to insert in the contract and deed the section, township, and range

and principal section subdivision in which the tract is located and a statement of the width of the right of way, if not of varying width.

17. **Possession, termination of grantor's.**—When land, the acquisition of which is necessary, is not needed at once and can be purchased for a less price if the vendor is allowed to retain possession until the land is needed, an arrangement to that effect may be entered into by including a reservation clause in the agreement to sell and in the deed, as follows:

The vendor may continue to occupy and use the said premises for
 years from the date of this instrument, unless the United States shall sooner or in the meantime notify the vendors of the intent of the United States to forthwith flood the land by the waters of the reservoir (or occupy it for that purpose for which it is purchased), it being understood that the United States may at any time give said notice, whereupon the right herein granted the vendors to continue to occupy and use the said land shall immediately cease and determine.

In cases where it is deemed imperative to modify the foregoing clause a recommendation therefor with full report should be submitted to the Washington office. Where practicable, however, possession should be surrendered to the Government on the passing of title.

18. **Abstract of title.**—Abstract of title should be prepared with appropriate certificates as to the status of the records concerning the land, and as to any judgments, taxes, and other liens affecting the same. Abstracts should not, however, be procured at the expense of the Reclamation Service in condemnation cases. (See par. 46.) If the abstract contains a large number of entries (10 or more), it should be indexed, and if the title to a ditch, canal, or canal system is involved the abstract should be accompanied by a map or maps showing, in distinctive colors, the ditch, canal or system, the lands affected thereby, and the nearest canal or work of the Government project. Abstracts should be prepared by a bonded abstractor or abstract company, or by a public official whose duty it is to furnish such information. Where such are not available, the agency used by the community for the preparation of abstracts will be accepted if accompanied by certificate of some duly qualified officer of the Reclamation Service as to the responsibility of such agency. All certificates to abstracts of title will be strictly construed, especially with reference to the state of the records relative to taxes. Care should therefore be taken to have all certificates to abstracts clear and specific in all particulars. Relative to taxes the certificate should certify that, except as shown by the abstract, there are no tax liens against the property nor any taxes levied or assessed against the property and unpaid.

19. **Copy of abstract.**—A copy of an abstract may be substituted for the original, but in such case someone connected with the service,

who is qualified must certify that the copy has been compared with the public records, and is a full, true, and correct abstract of all papers on record affecting the premises.

20. Procuring of abstract.—Ordinarily the vendor should be required to furnish the abstract and pay all filing fees for such papers as it may be necessary to file to make a clear record title in the vendor, and the cost of extending the abstract to include the deed to the United States. When, however, this is for any reason impracticable, the United States may procure the abstract and pay the filing fees, but in such case section 2 of Form 7-276 should be stricken out and appropriate notation made. Unless this is done such expenditure is not allowable under the form of agreement 7-276, which requires the vendor to pay for the recording of all papers needed to show good title, and to furnish abstract thereof, and also of the record of the deed conveying the property to the United States. Under this agreement payments so made must be deducted from the purchase price; otherwise the payments are wholly unauthorized and will be disallowed by the auditor. The terms of the agreement will govern in each case, and no bills for abstracting or recording should be paid unless warranted by the agreement.

21. Recording fees.—The payment of fees by the United States for recording papers deemed advisable to be placed upon the county records is held by the comptroller to be a payment in purchase of a privilege and not a payment under a contract for the performance of a service. Therefore, payment of such fees by the local special fiscal agent at the time of the filing of the instruments for record is held not to be in conflict with section 3648, Revised Statutes, and may be made by him. (Compt., Sept. 13, 1909, citing 15 Comp. Dec., 46; 10 id., 110.) Where, however, a contract provides for the payment of such fees by the contractor, such expenditures will not be allowed by the auditor.

22. Ordering abstracts.—Whenever recording or abstracting is ordered by any officer of the United States and payment for such service is not to be made by the United States, notice in writing to that effect should be given to the recorder or abstractor. If the work should be paid for by the vendor, and is in fact paid for by the United States to be afterwards deducted from the purchase price, a definite understanding should be had with the vendor upon this subject. The voucher on which such payment is made by the United States should bear a notation that the amount so paid will be deducted, or has been deducted from the purchase price and should bear reference to the voucher in the latter case.

23. Deed.—The ordinary form of warranty deed, or its equivalent, in general use, will be acceptable to the department, only one material

change being required, viz, the insertion of the italicized words in the clause to the following effect, usually found in such deeds: "For and in consideration of dollars to him in hand paid *in pursuance of the provisions of the act of June 17, 1902 (32 Stat., 388)*, by the said party of the second part," etc. The grantee, or second party must be the United States, and the words "heirs, executors, administrators, successors," etc., when referring to the second party, should be stricken out, and the sentence should read "the party of the second part and its assigns." When so provided in the contract a quit-claim deed will be acceptable in case title in fee is not vested in the vendor. One copy of the proposed form of deed should be retained by the engineer, to be executed by the vendor after the title has been found acceptable. If married, the vendor's wife should join in the deed under the same circumstances as in the agreement to sell. The description in the deed should agree with that given in the agreement to sell.

24. **Recording before approved.**—It may be advisable to have the deed executed before the title is approved, but in such cases the deed should not be filed for record until the title has been approved and the purchase authorized by the Secretary.

25. **Possessory certificate.**—The certificate relative to occupancy made by an officer of the service to accompany abstracts of title submitted for examination and opinion should be substantially in the following form:

POSSESSORY CERTIFICATE, RECLAMATION SERVICE.

.....Project, ...19..
 I (giving name and title), of the United States Reclamation Service, certify that I have personally examined the land sought to be acquired by the United States from, in the
 Sec., T....., R....., M.....,
 for project, and that the said proposed grantor was in actual, sole, and exclusive possession of the land proposed to be conveyed, claiming to be the owner, and no person claiming a right in such land adverse to the grantor is in possession of any part of it.

..... (title).

If such land is occupied in whole or in part by some one other than the owner the facts concerning such occupancy, together with statement of the claim under which the same is held, should be stated in the certificate.

26. **Defective title, resubmission of papers.**—If upon submission of the papers to the district counsel in charge of titles the title is found imperfect, the papers will be returned to the proper district counsel, with the opinion, for the necessary corrections, and the abstract should then be brought up to date and again submitted for re-examination.

27. **Deductions for liens.**—In cases where there are taxes or other liens against the property and the opinion of the district counsel in charge of titles permits the retention out of the purchase price of sufficient funds to satisfy the same, the following procedure should be followed:

(a) In all cases where the lien is payable the payment to the grantor and satisfaction of the lien should, if practicable, be concurrent, so that the voucher numbers can be consecutive. Where practicable the abstract of title should be extended to cover the satisfaction of the lien, and appropriate notation made on the voucher therefor to that effect; where it is not practicable to have the abstract so extended the certificate of the proper State officer showing the record of the satisfaction of the lien should accompany the voucher therefor, and bear appropriate notation to attach the certificate to the abstract, giving the fiscal agent's number of the voucher to which abstract is attached.

(b) In all cases where the lien is not yet payable (as where taxes are a lien, but the time when the proper State officer is authorized to accept payment has not arrived) the grantor may be paid, with proper deduction, and voucher for such payment, accompanied by title papers, forwarded in due course, with appropriate notation as to retention of part of purchase price to satisfy the lien. As soon as such lien is payable, it should be paid out of the retained portion of the purchase price, the voucher for the payment being accompanied by the proper evidence of the satisfaction of said lien of record, which latter should have an appropriate notation to attach the same to the abstract covering the purchase, giving the fiscal agent's number of the voucher to which the abstract is attached.

(c) In all cases where the grantor subsequently procures the satisfaction of the lien (as in case of taxes against an entire tract of which the United States purchases a portion only and the subsequent payment of the taxes against the entire tract by the grantor) the voucher to the grantor for the balance of the purchase price retained to satisfy such lien should be accompanied by the proper evidence of the satisfaction of such lien of record with notation referring to the abstract as in other cases.

28. **When time commences to run.**—The notice to the vendor to furnish an abstract of title and to procure and have recorded assurances of title necessary and proper to show clear and unincumbered title in him fixes the date from which time may be counted in favor of the United States for extension of the time as provided in the agreement. This notice must be properly given upon receipt of advice that the agreement to sell has been approved (see par. 8).

COMPENSATION OF SETTLERS FOR LANDS TAKEN.

29. When compensation may be made.—When it becomes necessary to acquire land for which there is a claim by reason of a settlement or uncompleted entry made prior to the first form withdrawal thereof, compensation must be made to such entryman, and compensation to the extent of the reasonable value of the improvements is permissible to such settler who has not made entry. Bona fide prior entrymen upon such of the lands as are surveyed are entitled to compensation for their improvements, the enhanced value to the land by reason of the improvements, and the loss of their inchoate right to the lands (34 L. D., 155), if such lands are to be used for reservoirs or other irrigation works independently of canal right of way. If lands are to be used for canals or ditches, the United States has a right of way under the act of August 30, 1890 (26 Stat., 391), providing the entry was made subsequent to October 2, 1888 (17 L. D., 521). No right can be acquired against the United States by settlement on unsurveyed land and settlers on such land are not entitled to compensation for improvements (*U. S. v. Hanson*, 167 Fed., 881), but the policy of the service has been to make reasonable compensation therefor. The rights of the United States under the act of August 30, 1890, are upheld by the United States District Court of Colorado in the case of *United States v. Martin Van Horn et al.*, decided June 12, 1912 (197 Fed., 611). An entryman on unsurveyed land under the desert-land law has probably the same right as on surveyed land, but this question has not been conclusively decided.

30. Persons entitled to compensation.—In order to entitle entrymen or settlers to compensation in such cases they must be bona fide; that is, they must be qualified to make entry under the public land laws, and must have in good faith complied with the law up to the date of the withdrawal. Settlers on unsurveyed land can not, by reason of the unsurveyed condition of the land, comply with the land laws. They must, however, be qualified to make entry, must have settled upon the land with such intention, must have resided upon it, and, so far as the condition of the land by reason of its being unsurveyed permits, they must have complied with the provisions of the land laws. If such laws have not been complied with, the party is not entitled to compensation but he may remove his improvements if such removal will not impair the property of the United States (34 L. D., 155).

Where satisfactory final proof has been submitted by the entryman the status of the entry with reference to the measure of compensation is the same as if final certificate had issued. (Opinion of Attorney General, June 21, 1906, H. E., 6309, Horace J. Dresser, Boise). In such cases and when final certificate has issued but

patent has not yet issued the value of the land is the same as though patent had issued. Where homestead or desert land entries are included within first form reclamation withdrawals they should not be suspended but allowed to proceed to final proof, certificate, and patent, and the land, if thereafter needed by the United States for reclamation purposes, reacquired by purchase or condemnation. (43 L. D., 374.)

31. Method of determining compensation.—Compensation is to be based on the status of the land at the time of the withdrawal (34 L. D., 421; 35 L. D., 459). In determining the compensation (a) the value of the improvements, (b) the enhanced value of the land by reason thereof, and in case of surveyed land (c) the loss sustained by the settler in depriving him of his inchoate rights by the taking of lands, should all be taken into consideration (34 L. D., 155). The services of an appraisal board should be utilized. (See par. 3.)

32. Agreements for compensation of settlers.—Agreements for compensation for improvements on lands thus appropriated should be entered into on Form 7-528, modified to suit the particular case, subject to approval, as in case of ordinary contracts. (See par. 38.) Wherever the agreement is for improvements on right of way reserved under act of August 30, 1890, it should also contain an article as follows:

ART. —. It is understood and agreed by and between the parties hereto that the strip of land herein described is subject to appropriation and use for right of way for canals or ditches constructed by the authority of the United States under and by virtue of the act of Congress of August 30, 1890 (26 Stat. L., 391), and the contractor hereby confirms to the United States a right of way upon said strip of land for such use.

This clause should also be used where compensation is to be made for improvements on patented lands subject to the said act of August 30, 1890.

Such agreements should be recorded and abstracts of title obtained when the consideration is more than \$500. When less than \$500, district counsel will examine the records and verify the title, but no abstract or recordation is required.

33. Purchase of improvements.—In the purchase of improvements on rights of way reserved under the act of August 30, 1890, where the consideration to be paid is not more than \$250, the paragraph relative to liens may be stricken from the standard forms of contract applicable to these cases, unless in any particular case reasons exist which require that these paragraphs be retained. When submitting such contracts, the reasons for striking out or retaining the said paragraphs should be stated.

34. Certificate as to mortgage.—Certificate should be secured from the proper officer showing that there is no existing mortgage on the improvements.

35. **Improvements on unsurveyed land.**—With every agreement for compensation for the improvements upon unsurveyed land, there should be furnished a sworn statement by the party, briefly stating the facts of settlement, and of his qualifications and intentions to make entry when the land is surveyed. Persons executing contracts on behalf of the United States for compensation for improvements should certify, in addition to the other matters required, as to the facts considered in determining the good faith of the settler.

36. **Condemnation of settlers' improvements.**—Whenever an agreement can not be made with the entryman or settler, as to the amount to be paid, the same procedure should be taken as in condemnation proceedings for private lands (28 L. D., 58). (See pars. 39-46.)

37. **Entry and application to enter.**—The distinction between an entry and an application to enter should be noted. The application to make entry is an act preceding the allowance of an entry, and until an application to make homestead or desert land entry has been filed and accepted in due form, it will not prevent the attachment of the withdrawal. So also an application to purchase timber and stone land is not effective as against a withdrawal until final proof has been submitted and payment has been made. A mere applicant for entry is not entitled to compensation. In case of doubt the matter should be referred to the Washington office for advice.

38. **Inchoate right only acquired.**—In those cases where an entryman is entitled to compensation it will be observed the title to the land has never passed from the United States and what is to be acquired is not the land but the inchoate right thereto. The procedure in such cases is: (a) If an entire legal subdivision is involved a relinquishment to the United States is sufficient, and a certificate should be obtained from the register and receiver of the local land office showing that the entry was valid and subsisting at the time of the relinquishment, and that it has been relinquished and canceled on the records of the land office. This certificate should accompany the voucher of the special fiscal agent in lieu of the deed or relinquishment, which will be retained in the local land office. (b) Where less than a legal subdivision is to be acquired, which can not be described in the ordinary way (by quarters and halves) deed to the land to be acquired should be taken from the entryman, recorded in the proper county, and transmitted with title papers, and recommendation that reservation be made in the patent of the lands described in the deed. When patent is issued it will contain a reservation to the United States of the rights covered by the deed. (c) Where an easement only is all that is necessary to be acquired, as a right of way for (1) railroad, (2) telegraph, (3) telephone, (4) canal, (5) reservoir or flowage, (6) roadway, or (7) transmission line, deed describing particularly the right desired, should be taken from

the entryman, and the same procedure followed as in (b) above. This procedure dispenses with the necessity of subdivisional surveys in all cases where the entry precedes the withdrawal, and is authorized as to right of way for purposes (1) to (5), inclusive, by departmental letter of March 5, 1913, construing section 2288, Revised Statutes, as amended by the act of March 5, 1905 (33 Stat., 991), and as to right of way for purposes (6) and (7) by the First Assistant Secretary's decision of February 6, 1914. Whenever procedure is taken under (b) or (c) the report should state whether the lands are included in any existing withdrawal, with date thereof; if not included in a first form withdrawal, recommendation for such withdrawal should accompany the report.

CONDEMNATION PROCEEDINGS.

39. **Reports.**—Whenever the price to be paid for lands can not be agreed upon a report stating all the circumstances and the amount demanded by the owner, the amount offered, and the reasonable value thereof, in the opinion of the person designated to conduct purchase negotiations, should be at once sent to the Washington office, with a definite recommendation for condemnation proceedings.

40. **Written offer to be made.**—Prior to condemnation proceedings it is important that a definite offer in writing be made the owner, and, if possible, a definite refusal, or counter offer, in writing, be obtained from him. Statement thereof and copies of the letters should be incorporated in the report. It is often advantageous to make full report in advance of recommendation for condemnation so that in cases of emergency the recommendation may be made by telegram. In such case all necessary data will be available in the Washington office for submitting the matter to the Attorney General.

41. **Recommendation.**—It is important that authorization be promptly given the United States attorney to institute condemnation proceedings in time to acquire the right of possession of the premises when needed for construction purposes. The request to the Attorney General will state that "it is necessary or advantageous that condemnation proceedings be instituted for the acquisition of the lands desired to be condemned, pursuant to the authority conferred by section 7 of the act of June 17, 1902 (32 Stat., 388)." The recommendation should contain an accurate description of the land to be incorporated in the draft of the Secretary's letter to the Attorney General if such description be short and simple; if long and complicated the recommendation should refer to and be accompanied by a black and white print (in triplicate) showing the lands to be condemned. If final description can not be given at the time the recommendation is made it should be supplied as above as soon as prac-

licable thereafter, such description will be submitted for approval of the Secretary when received and evidence of such approval when made will be supplied the field for use of the United States attorney in the action, it being necessary to allege that the Secretary of the Interior has selected the particular tract of land involved for use in connection with operations under the Reclamation Act. (U. S. v. Van Horne, 197 Fed., 611.)

42. Possession and payment.—In the case of *United States v. O'Neill* (198 Fed., 677) it was held, following numerous decisions of the United States Supreme Court, (a) that the United States in instituting condemnation proceedings is not exercising the State's power but is exercising its own sovereign right, and is not, therefore, bound by the limitations and restrictions placed upon the exercise of that power by the State statutes; (b) that the only restriction placed upon the exercise of that power by the United States is that provided by the fifth amendment to the Constitution, to wit, that just compensation shall be made. The court concluded that payment of the compensation need not precede the occupancy of the property and granted an order admitting the United States into possession. It will, therefore, hereafter not be necessary to wait the determination as to what is just compensation before asking for an order of possession. Such order can be issued immediately after the initiation of the suit.

43. Settlement.—When after the commencement of a condemnation suit the defendant is willing to accept the price offered by the United States, such settlement may be accepted by the Government, provided the defendant in the contract of sale or stipulation for judgment agrees and consents to have the condemnation suit dismissed at his cost. Settlements on bases other than the above will be approved only in exceptional cases. In any case of settlement report should be made of all the facts to the Washington office, with recommendation that the suit be stayed pending the negotiations looking to a settlement; and thereupon, if the matter is approved, appropriate action will be taken to stay the proceedings.

44. Final judgment and payment.—When final judgment has been obtained a certified copy thereof should be forwarded to the Washington office in order that prompt application may be made for Treasury warrant for payment or for additional payment if part payment has been made.

45. Payment by Treasury warrant.—Payment in condemnation cases will be made by Treasury warrant in favor of the judgment creditor, and will be sent to the United States attorney in whose district the action was brought, in order that he may secure the proper satisfaction of the judgment. When, therefore, certified copies of the papers are forwarded, the letter of transmittal should indicate the

name and address of the United States attorney in whose district the judgment was obtained.

46. **Abstracts of title in condemnation cases.**—Abstracts of title should not be procured by the Reclamation Service in condemnation cases. The Department of Justice will procure abstracts in such cases when deemed necessary.

47. **Donation of lands—Procedure.**—Where lands required in connection with the construction or operation of irrigation works are donated or purchased for a nominal consideration no abstract of title need be furnished or procured. In such cases the land should be personally examined by an employee of the service, and an examination made of the tax records of the county where the land is situated. If the land is not occupied adversely to the reputed owners, and the tax records indicate them to be the owners, a certificate, similar to the possessory certificates required in land purchases, but certifying in addition that the tax records indicate the reputed owners to be the actual owners, and signed by the person making the examination, should be transmitted with the deed. When these examinations are made by different persons a certificate should be made by each person performing any part of such examination. Exceptional circumstances on account of extra expenditure or special trip may make it impracticable to obtain the above information, in which case a statement should be submitted with the deed setting forth reasons why the information can not be obtained. A report should also accompany the papers, stating whether there are any liens or taxes against the property, and if so their amount, and other detailed information with reference thereto. This report with deed and certificates should be transmitted to the local district counsel, who will secure correction of any errors or deficiencies, and when all papers, including the deed, are in satisfactory form will note his approval on certificate and report and send all papers to the project manager, who shall cause the deed to be recorded in the county records. As soon as recorded the deed shall be forwarded with all related papers to the Washington office by the project manager with four copies of form letter 7-523a-t on the original of which shall be placed the initials of the persons who checked or approved the deed before submission to the district counsel.

48. **Liens, provisions for.**—If, in such cases, an agreement to sell is entered into, provision may be inserted whereby the payment of such lien is assumed by the United States so far as it affects the land so deeded.

GENERAL INSTRUCTIONS.

49. **Monthly report.**—The district counsel engaged in right-of-way negotiations or for the purchase of lands, where a considerable number of such contracts are being handled, will make monthly reports

of progress to the Washington office not later than the 10th of the succeeding month with copy to the chief of construction. Such reports should be accompanied by map on a suitable and convenient scale. A special map need not be prepared, the small project map being sufficient. If, however, a special map is prepared, it should be on a scale of a half inch to the mile. The map should show the lands to be acquired as follows:

- (a) *Red hatching*.—Lands for which no contracts have been made.
- (b) *Yellow hatching*.—Lands for which contracts have been executed, but not yet approved.
- (c) *Green hatching*.—Lands for which contracts have been approved.
- (d) *Blue hatching*.—Lands for which abstracts have been submitted to United States attorney.
- (e) *Black hatching*.—Lands for which abstracts have been approved.
- (f) *Blue tint (solid)*.—Land to which the United States has acquired title.

If there has been no change since the preceding month it will be sufficient to make such report without preparing a map showing the status of the purchases. If all purchases necessary have been made a statement to that effect will be sufficient.

50. Canal system, purchase of.—In the purchase of a canal system already constructed, it often happens that the right of way is held by prescription and not record title. In such case the agreement to sell and subsequently executed deed should contain this clause:

It is understood that as to a portion of the right of way proposed to be conveyed the right of the vendor is not evidenced by formal deed of conveyance, but rests upon uninterrupted and undisputed possession and user for at least years, and the price to be paid having been fixed in view of this condition, a conveyance of all claim or right the vendor may have is to be considered and accepted as compliance with the provisions of this contract as to the portion of the right of way so held.

The number of years the property has been occupied and used for canal purposes must be not less than the period prescribed by the law of the State in which the land is situated for acquiring title by adverse possession. This modification should be made only in respect of rights of way for works already constructed, and never as to purchases of land for rights of way for canals, ditches, or other works proposed to be constructed by the Government; that is, the form as printed should be used generally, and the modified form only in the exceptional case where needed in the purchase of a constructed canal.

51. Indian lands, purchase of.—In all acquisitions of land or property from Indians under the control of the Bureau of Indian Affairs, the department requires that the deeds and other related papers should be accompanied by report from the officer in charge of the

Indians. When such papers are prepared, therefore, they should be submitted with duplicate copy to the superintendent or other officer in charge of Indian affairs in the field, the duplicate copy to be transmitted by him to the Commissioner of Indian Affairs, with his report as to the fairness of the transaction, the disposition of the money, etc. The original copy should be returned to the officers of the Reclamation Service presenting the same accompanied by a statement of his views thereon, for transmittal to the Washington office of the Reclamation Service, to be taken up with the Commissioner of Indian Affairs, with the view to obtaining the approval thereof by the Secretary of the Interior.

LEASE OF GOVERNMENT LANDS.

1. **Temporary leases of withdrawn land.**—Lands acquired or under first form withdrawal in any irrigation project may be leased when the use of the land under the proposed lease will not interfere with the use and control of the lands when needed for the purposes contemplated by the purchase or reservation of such lands. (34 L. D., 481.) The reclamation commission on March 23, 1917, adopted the following minute:

Resolved, That it is the sense of this commission that whenever it is reasonably necessary for the preservation of the buildings, works, and other property, or for the proper protection and efficiency of any reclamation project, or where special considerations make it advisable, first form withdrawn or purchased lands may be leased to the highest bidder for a term to be decided upon by the commission as the conditions may arise.

By order of the Secretary of April 24, 1917, general authority was given for leasing first form lands for agricultural or grazing purposes, the former being preferred. This authority is in force until further notice. See Regulations of May, 1917.

2. **Approval of leases.**—Before advertising for bids report should be forwarded to the Washington office, with explanation of the necessity under the above minute for entering into the same, and with recommendation as to the term for which the lease should run. After authority is received from the commission, such leases, if not varying materially from the standard form, will be treated as other contracts and executed and approved in the same manner. (See Contracts, pars. 1-7.) When advertisement is to be dispensed with in the case of either large or small leases of this nature, certificate should be made explaining the failure to advertise, which must bring the case within the exceptions noted in advertisement and bids, paragraph 2.

3. **Approved form of lease.**—The standard form of lease should be followed as nearly as practicable, and all material deviations therefrom should be fully explained.

4. **Rent.**—The moneys received on account of such leases will be covered into the reclamation fund under the provisions of the act of March 3, 1905 (33 Stat., 1032).

5. **Vacant land.**—Before lease is made of withdrawn land the records of the local land office should be examined carefully to see that all of the land to be leased is vacant. Such an examination, once made, need not be repeated, when the land has in the meantime been protected by withdrawal from entry.

6. **Bird preserves.**—Leases which include land within a bird preserve should contain the following clause:

The lands herein described having been designated by presidential proclamation as a part of a national bird preserve are subject to the rules and regulations of the United States Biological Survey. The contractor agrees to do no act contrary to the rules and regulations established pursuant thereto, and any violation of such rules and regulations on his part or on the part of any of his agents or employees shall render this lease subject to termination on five days' notice.

7. **Authority to lease office rooms.**—Authority for the establishment of offices of the service must in all cases be obtained from the Secretary upon recommendation of the Washington office. Appropriate lease should be made with the owner or agent having authority to make the lease.

8. **Destruction of premises.**—At common law a lessee of premises accidentally destroyed subsequent to the making of the lease can not be relieved against an express covenant to pay rent unless he has stipulated in the lease for a cessation of the rent in such case or the lessor has covenanted to rebuild; nor will equity relieve against an express covenant except in case of fraud, accident, or mistake. (See 24 Cyc., 1156.) In all leases of premises by the United States a stipulation for the cessation of rent in such a contingency should be incorporated similar to the stipulations contained in articles 2 and 4 of the approved form.

9. **Competition when United States is lessee.**—Statutory requirements regarding the securing of competition prior to the execution of contracts do not apply to leases of buildings or rooms for office or storage purposes. (See Advertisements and bids, par. 1.)

10. **Use of official buildings.**—Buildings rented or erected for use as offices, storerooms, etc., are not to be used for lodging, except under special authority granted by the chief of construction. Experience shows that fire hazard is greatly increased by such occupancy.

LITIGATION, CONDUCT OF.

1. **Authority to institute.**—Suits in equity or actions at law in which the United States is a party are under the direction and control of the Department of Justice, and in all such matters the United States is represented by officers of that department. In the institution of any suit by the United States or the defense of any suit against it the department under whose jurisdiction the dispute occurs requests the Department of Justice to take such action as may be necessary to protect the interests of the United States.

2. **Report and recommendation for instituting.**—When the institution of any suit by the United States is deemed necessary or any action is commenced or threatened to be commenced against the United States or any of its officers report should be at once made to the Washington office by both the project manager and the district counsel stating the conditions and all essential details as fully as practicable and recommending such action as may seem advisable. Recommendation to the Secretary for action by the Attorney General will then be made. If advisable, the Attorney General will direct the local United States attorney or some other officer of the Department of Justice to appear and take the necessary action to protect the interest of the United States. When the necessity for action seems imminent and likely to require prompt action in the near future a full report of the conditions should be mailed so that when the emergency arises the request therefor can be made by wire.

3. **Claims against United States.**—Under section 951, Revised Statutes, before any claim can be allowed against the United States in a suit to which the United States is a party such claim must have been submitted to the accounting officers of the Treasury and disallowed by them in whole or in part. (For condemnation suits see Lands, acquisition of, pars. 39-46.)

4. **Compromise and dismissal.**—When the case is such as permits of a compromise and settlement, offers of settlement by the party against whom the United States appears in the action should, if otherwise deemed reasonable, be tentatively accepted only on condition that the party pay the costs of the action so far incurred. (See Lands, acquisition of, par. 43.)

5. **Witnesses, members of service aa.**—Section 850 of the Revised Statutes provides that when any clerk or other officer of the United States is sent away from his place of business as a witness for the

Government, his necessary expenses, in going, returning, and attendance on the court, stated in items and sworn to, shall be audited and paid; but no mileage or other compensation in addition to his salary shall in any case be allowed. Accordingly, whenever a clerk or other officer of the service is subpoenaed to testify on behalf of the United States, his salary will be paid as if he were on duty during the period of his absence in pursuance of such subpoena. He should keep a memorandum of his necessary expenses in going and returning and attendance on the court and should prepare a sworn statement of the same and present it to the clerk of the court for payment. Fares on railroads and Pullman accommodations should not be paid for with transportation requests, but should be paid for in cash and included in the expense account presented to the clerk of the court.

MORTGAGES ON IRRIGABLE LANDS.

For instructions see General Reclamation Circular, approved May 18, 1916, as amended to date.

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NEWSPAPER ADVERTISING.

[See also Advertisements and bids.]

1. **Advance authority.**—Advertising in periodicals and newspapers must be supported by written authority, secured in advance. (See sec. 3828, R. S., p. 503.)

2. **Departmental regulations.**—November 27, 1911, the department issued to the director the following orders to govern advertising necessary to the work of the Reclamation Service:

Hereafter the advertising necessary to the work of your bureau will be under your supervision, and you are hereby authorized to select, and instruct your officers to use, for advertising purposes, such newspapers of local or general circulation in each locality as will sufficiently meet the requirements of the respective laws, or the regulations or instructions of the department, and will convey the purpose of such advertisement to the public; provided, that not more than three newspapers shall be so selected in any one locality.

3. **General instructions.**—Newspaper advertisement should be as brief as is consistent with clearness, and should contain a concise statement of the nature and approximate amount of work to be performed or material to be furnished, a statement of the time and place of opening proposals, and the address of the officer from whom particulars may be obtained. (See also Advertisements and bids.)

4. **Advertisement to be authorized by director.**—When an officer desires to advertise in the press for proposals under which contract is to be executed in the field, the desired form of advertisement should be forwarded to the Washington office at as early a date as possible, in order that the requisite authority for publication may be secured. The officer should state the publications in which it is desired to advertise and the number of insertions in each publication. If the case is urgent the director will wire the officer authority for publication, and the officer may at once present the advertisement to the authorized publication for insertion therein. Payments for advertising must not be made by special fiscal agents in the field, except upon vouchers first approved in the Washington office. Bills for advertising should be transmitted to the Washington office for examination in the office of the Secretary of the Interior and payment.

OPTIONS.

[See also *Lands, acquisition of.*]

1. **Meaning of the term.**—An option to purchase land is not an agreement to sell. An option is merely a privilege of buying without obligation to do so on part of the buyer but with obligation to sell on part of the seller if the buyer decides within the time limit to purchase. An agreement to sell on the other hand is a reciprocal obligation binding the vendor to sell and the vendee to buy. Both are contracts and must be supported by a consideration, but in the agreement to sell the reciprocal promises and obligations are each the consideration for the other, while in the option, there being only one obligation, that on part of the vendor to sell, there must be a consideration moving to the vendor from the other party.

2. **Consideration for option.**—Because the consideration paid for an option may never be followed by a purchase the Comptroller of the Treasury has held that payment of a sum of money for an option for a right of way, water right, land, or other property right needed for reclamation work would not be a proper expenditure from the reclamation fund. (9 Compt., 569; 23 Compt., 116.)

PAYMENTS, POSTPONEMENT OF.

1. **When allowed.**—Water users on reclamation projects whose growing crops are damaged or destroyed by hail and who for this reason are unable to make payment of the building charges under the reclamation law, which would become delinquent at the time the next installment thereof became due, may, in the discretion of the Secretary, be allowed a postponement of such charges, but no such postponement shall be for more than one year or extend beyond the 10 or 20 year annual payment period, the time within which the water-right charges are required to be paid. No such application will be considered from any water user if at the time the damage occurred two or more payments of reclamation charges were due and unpaid for the lands for which deferment is asked.

2. **Application for postponement.**—Must be made through the project manager, upon the prepared form, stating that the water user is unable to pay the building charge, and giving in detail (a) description of applicant's land, length of residence thereon, description of improvements and statement of their value; (b) serial number of the water-right application, with amounts paid on account, respectively; of the building and the operation and maintenance charges for the several years in which installments of such charges were due; (c) irrigable acreage for which water was available for current year; (d) number of acres in cultivation and crops to which cultivated; (e) statement as to the cause of destruction or damage of crops and date when loss occurred; (f) number of acres and nature of crops destroyed or damaged; (g) statement of the condition of crops before destroyed or damaged, with estimated total yield if destruction or damage had not occurred; (h) actual yield, if any, and estimated loss in money.

The project manager will forward such application with his report and recommendation to the Washington office, when suitable recommendation thereon will be made to the Secretary.

3. **Alkali land.**—Lands too alkaline to produce profitable crops may be supplied with water for a nominal rental to encourage washing the alkali from the soil. (Assistant Secretary, Mar. 29, 1913, C. L. No. 88.)

PERSONAL SERVICES.

Personal services may be secured as follows:

(1) An agreement may be made with an individual, firm or corporation to do a given work and furnish the necessary labor. In such a case advertising is required by section 3709, Revised Statutes, and a contract must be executed according to section 3744, Revised Statutes. If such labor is required for construction or repair of any public building or work, a bond is necessary under the act of February 24, 1905 (33 Stat., 811).

(2) An engagement may be made with an individual whereby he is to render his own personal services. In such a case advertisement is not required by section 3709, Revised Statutes, and a contract in the form provided by section 3744, Revised Statutes, need not be executed, but the terms of the employment should be determined in advance, and set out in the commission, appointment, or notice of employment. (See also Employees.)

(3) Where appraisers are necessary for determining the value of town lots for sale under the town-site acts (pp. 417, 422, and 436), or for the determination of the value of lands owned by the United States and to be sold under the act of February 2, 1911 (36 Stat., 895), see page 446, or where it is necessary to determine the value of land for purchase or to ascertain the amount to be named in a contract of compensation for damages, appraisers may be selected and appointed for the particular purpose, either through the Secretary, as required by the law in the cases of town sites and sale of lands, or they may be employed by the project manager and paid on ordinary purchase voucher for services rendered as a job.

POWER AND POWER PRIVILEGES, LEASE OF.

1. **Competition.**—Bids for the lease of surplus power or power privilege authorized under the act of February 24, 1911 (36 Stat., 930) should be called for on the basis of a minimum price fixed by the service with appropriate conditions to prevent interference with the use of water on the project. The prices should be determined in such manner as to involve the minimum of supervision. As required by the act preference will be given to use for municipal purposes. Before any arrangement is made, a form of agreement with report on the conditions to be imposed and proposed plan of disposal of the power or power privilege should be submitted to the Washington office through the chief of construction for approval.

2. **Permanent contract, power for irrigation purposes.**—The limitations of the act of February 24, 1911, are inapplicable to lands above the grade of a Government canal in which there is a sufficient supply of water for the irrigation of such land, to accomplish which the owner is willing to install his own pumping plant, and utilize therefor an available power development from the Government project. Such power development and irrigation are actually a part of the project and as such subject to the terms of the reclamation act, the water supply and power development being appurtenant to the land irrigated, and not limited in time as provided in that act. Under an appropriate and permanent contract which should include the necessary power privilege for irrigation purposes and as appurtenant to his land, such landowner may be admitted to the benefits of the reclamation act. (Secretary's instructions, June 2, 1910.) A statement by the project manager should accompany power leases clearly setting forth all the facts and circumstances relative to ownership, amount of land irrigated, residence, whether the land has been subscribed to the water users' association, and other similar pertinent facts sufficient to determine whether such landowner is qualified to make water-right application. The same rule is applicable in general to the rule of power for irrigation purposes.

3. **Privileges to more than one individual.**—April 25, 1913, the department authorized the approval of power contracts for irrigation with two or more individuals, as such, who are qualified landowners and applicants for water rights under a reclamation project, the power privilege to be used exclusively for the irrigation of the lands affected by water-right applications. Such contracts, however, should not be made with firms or corporations or with aggregations of owners showing corporate or firm characteristics or features.

PUBLIC NOTICES.

1. **Public notices, when issued.**—Under section 4 of the reclamation act, as soon as any division of an irrigation project is completed, the Secretary will give "public notice of the lands irrigable under such project and limit of area per entry, which limit shall represent the acreage which, in the opinion of the Secretary, may be reasonably required for the support of a family upon the lands in question; also of the charges which shall be made per acre upon the said entries, and upon lands in private ownership which may be irrigated by the waters of the said irrigation project, and the number of annual installments, in which such charges shall be paid and the time when such payments shall commence." Under the extension act of August 13, 1914, the number of annual installments in which the construction charge is to be paid is increased from 10 to not exceeding 20.

2. **Description of lands.**—The public notice should describe the irrigable lands for which water can be furnished by reference to farm unit plats. The farm unit plats are approved by the Secretary prior to the issuance of the public notice and copies thereof are filed in the project office, the General Land Office, and in the local land office for the district in which the project is located.

3. **Limit of area.**—The limit of area per entry is fixed by the public notice by reference to the farm units on the approved farm-unit plats. The sizes of farm units are determined by local physical conditions and vary for the different irrigation projects from 10 to 160 acres as determined by the fertility, irrigability and location of the land. The limit of area of land per owner for which water-right application can be made for lands in private ownership is 160 acres of irrigable land unless otherwise stated in the public notice. (See Farm-unit plats.)

4. **Charges.**—The installments of the charges made by the United States on entries and on lands in private ownership to be irrigated on a project are divided into two parts, namely, the construction charge and the operation and maintenance charge.

5. **Publishing and posting.**—Upon the issuance of a public notice a copy will be transmitted to the project manager, with appropriate instructions, for posting in his office and to the publishers of desig-

nated newspapers for publication. Copies are also furnished to the water users' association or irrigation district, if any, and to the General Land Office.

6. **Announcements.**—Upon receipt of a public notice the project manager will notify all parties whose entries are affected thereby of the amount of the construction charges; the number of installments; the time when payments thereon are to commence; what the operation and maintenance charges for the first year will be; when and where payment thereof is due and what amount of water will be furnished per acre per annum; whether the Secretary has or has not, as the case may be, entered into contract with a water users' association on the project and therefore whether the certificate of the water users' association forming part of the application should or should not be filled out and properly executed. In most cases this information can be furnished by sending out printed copies of the public notice.

7. **Conforming of entries.**—All entries of lands shown on farm-unit plats should be made in conformity with the units designated on such plats. Each farm unit must be entered in its entirety, and no more than one of such units can be embraced in an entry. Where entries are made subsequent to reclamation withdrawal but prior to the date of filing the farm-unit plat the entry must be conformed as required by section 13, act of August 13, 1914 (see p. 466), and the regulations thereunder.

8. **Data to be furnished.**—When public notice is ready to be issued the project manager will forward report containing the following data:

(a) Farm-unit plats, showing tracts to be watered. (See Farm-unit plats.)

(b) Statement showing fully the derivation of the figures of cost and the resulting charges (1) for construction and (2) for operation and maintenance.

(c) Draft of proposed public notice.

(d) Statement of duty of water.

9. **Preparation of public notices.**—The preparation of public notices should be begun sufficiently in advance to permit painstaking checking of their accuracy. When public notice is to be issued, the project manager should consider carefully all the conditions to be provided for and advise the Washington office fully. Draft of public notice should be prepared sufficiently in advance to allow the notice to be studied thoroughly by the project manager, to have the draft submitted to the local district counsel for his full and careful consideration, and to permit the Washington office a reasonable time to prepare and resubmit a redraft for rechecking by the project manager and the district counsel, before the public notice is submitted to the depart-

ment for signature. Attention is called to the following information, which should always be given in submitting drafts of public notices:

(a) Whether there is any vacant public land subject to the proposed public notice, and the number of farm units to be opened to entry. Where a public notice covers unentered public land, it is necessary to provide in the notice for making entries of the same, which is not required when there is no public land.

(b) Whether any part of the land under the public notice was on or before August 13, 1914, subject to the reclamation laws, so as to show whether the plan of payment, under section 1 or section 2 of the extension act, or both, will be applicable.

(c) Whether the public notice should be printed, stating the number of printed copies needed by the project.

(d) The amount of the construction charge and the amount and due dates of the operation and maintenance charges.

(e) The newspapers in which it is desirable to have the public notice printed, usually all the project papers.

10. **Publicity.**—A number of copies of public notices are printed and sent to the field for distribution to persons interested. Public notices and orders are also published in newspapers and in the "Decisions of the Secretary of the Interior Relating to Public Lands."

REPAYMENTS, SECURITY FOR.

1. **Private lands, methods of pledging.**—Where private lands are embraced under a projected irrigation system and the owners desire Government construction, one of two methods may be adopted for pledging the land to return the cost of the system: (a) An irrigation district may be organized to contract with the United States; (b) the land may be deeded in trust in such a way as to return the cost of construction. Of the two methods, the former is preferable, where the State in which the land lies has adopted irrigation district laws so as to permit contracts to be made, which has been done in most of the irrigation States.

2. **Irrigation district plan.**—An irrigation district has the following advantages: (a) All of the private land under an irrigation system may be made to contribute toward repaying the cost of construction, for when an irrigation district is organized all of the land within the boundaries of the district is subject to the irrigation district taxes or assessments; (b) the charges are payable with the minimum of trouble, being collectible as taxes under the State laws; and (c) landowners within such irrigation districts are not prevented by being included within such district from making a first mortgage on their land. Wherever practicable, the irrigation district plan of returning the cost of constructing a Government project is to be preferred, although in no case should steps be taken to organize a district for the sole purpose of contracting with the Government for the repayment of the cost of an irrigation project unless the matter is passed on in advance by the Washington office.

3. **Trust deed.**—March 31, 1912, the department authorized the trust deed plan for private lands under the fifth unit of the Umatilla project, Oregon. The owners convey their land to one or more trustees selected by them and approved by the Secretary of the Interior with power to sell unless water-right applications are made by qualified owners, which insures the sale of excess lands held in tracts exceeding the limit fixed for private holdings. The landowners pay the trustee for the services performed. The contract between the landowner and the trustee should contain nothing to interfere with the right of the United States to enforce the provisions of the trust deed. Draft of contract should therefore be submitted to the Washington office for approval. The trustee to be selected

should be some reliable corporate trust company. The trust deed should grant the Secretary of the Interior power to remove any trustee and appoint a successor in case of the failure of the original trustee to observe the terms of the trust. Form of approved trust deed can be had on application to the Washington office.

4. Plan submitted in advance.—Specific authority must be obtained from the Secretary in each case for the utilization of the form of trust deed, and recommendations for such use should be made in ample time for careful consideration and such changes as may be found necessary.

**RESERVATIONS, FOREST, MILITARY; RIGHT OF WAY ON,
WITHDRAWALS ON.**

1. **Withdrawals of land in forest reserves.**—The acts of March 3, 1891 (26 Stat., 1095) and February 15, 1901 (31 Stat., 790), authorize the Secretary of the Interior under regulations to be prescribed by him, to permit the use of right of way for canals and reservoirs for irrigation purposes through the forest and other reservations of the United States. Areas in national forests that are needed for irrigation works for Reclamation Service projects should therefore be withdrawn under the first form so as to prevent the attachment of any claims under the acts granting rights of way for canals and reservoirs to individuals and corporations, or to prevent their use for mineral purposes, which would be permissible if subject only to the withdrawal for a national forest.

2. **Reclamation withdrawal dominant.**—When land within a national forest is withdrawn for reclamation purposes under the act of 1902, the withdrawal for that purpose will be considered the dominant one. The land will remain liable to use by the Reclamation Service. Prior to the time the Reclamation Service requires the land for actual use, it will remain for administrative and protective purposes under the control and jurisdiction of the Forest Service. (Secretary to Director, Feb. 27, 1909.)

3. **Use of earth, stone, and timber.**—The act of February 8, 1905 (33 Stat., 706), authorizes the Secretary of the Interior to provide earth, stone, and timber from public lands and forest reserves for use by the Reclamation Service.

(a) *From public lands.*—Permission to take such materials from the public lands should be first secured from the Washington office in each individual instance. Before such permission is given, it is necessary to obtain a report from the General Land Office as to the status of the land. The description by legal subdivision, section, township and range should be given if the land is surveyed, and if unsurveyed such description should be given as may identify the location by reference to the General Land Office map of the State or Territory. Request for permission to use material should be forwarded in ample time before it is needed.

(b) *From national forests.*—Application to the district forester for the use of timber from national forest reserves should be made on the blanks provided for that purpose. If timber is to be used by

a contractor on Reclamation Service work, the matter should be taken up directly by the project manager with the forest supervisor. In cases of exigency where there is not sufficient time to submit formal application, request for the use of the timber should be made by wire to the forest supervisor.

4. **Precautions against fire.**—The instructions of the forest supervisor regarding precautions against fire, etc., should be carefully followed in each case and care taken to dispose of the brush in the manner prescribed by the forest officer.

5. **Sale of timber.**—Where timber is to be cut for sale from lands withdrawn under the first form, not within a national forest, the forest supervisor should be requested to submit a report, estimate and suggestions for the contract.

6. **Reports on right-of-way applications.**—In reporting on canal and railroad right-of-way applications, the question of conflicting private interests should not be considered. The report should cover the feasibility of the proposed plans, such as sufficiency of water supply, and other matters pertaining to the merits of the case, such as the good faith of the applicants and the effect of the allowance of the applications upon public interests; as well as any interference with proposed plans of this service. Any additional data should be reported merely for the information of the General Land Office with a view to further investigation if desired.

7. **Abandoned military reservations.**—The Secretary is without authority to segregate lands in abandoned military reservations in connection with an irrigation project (32 L. D., 130). If any lands within such reservation are required for reclamation purposes, a statement in regard thereto should be made to the Washington office at the earliest opportunity in order that steps may be taken toward securing necessary legislation.

RESTORATION.

1. **Recommendations.**—No restoration should be recommended until the fact is definitely established that the lands will not be required for construction, operation and maintenance, or that they can not be irrigated under the project. The restoration of a tract may be recommended if its status can be determined without the expenditure of time or money for survey or examination of the ground. No information should be given, even to the applicant, regarding the nature of the report and recommendation. (See Rights of way, par. 10.)

2. **Extent of restoration.**—Recommendations for restoration should always include as much land of similar status in the same locality as it is practicable to restore.

3. **Applicant not entitled to explanation.**—In the case of an application to release certain lands from the operation of an order of withdrawal, the United States need assign no reason for declining to do so when the applicant is merely desirous of entering the same in case it can be restored to entry. (First Assistant Secretary, Nov. 22, 1909, case of D. O. Robertson, Sunnyside project, Washington.)

4. **Entry prior to withdrawal.**—Where an entry is made prior to the reclamation withdrawal it is not affected thereby and no recommendation to the department is necessary for restoration.

5. **Restoration effective.**—All orders of restoration become effective on the date they are received in the local land office, unless otherwise specified (38 L. D., 146). The departmental approval of the order of restoration generally authorizes the Commissioner of the General Land Office to assign dates and manner of settlement and entry, which are usually 60 and 90 days, respectively, after date of approval. (See also act of Sept. 30, 1913, 38 Stat., 113.)

6. **Notice of restoration.**—In all cases of restoration of lands to entry under the public land laws, the register and receiver are furnished with three copies of each notice of restoration, one of which is promptly posted in their office and remains posted for at least 90 days thereafter. If the lands restored are in or adjacent to a United States reclamation project, the project manager is furnished with copy of notice of restoration to be posted in his office. The register and receiver furnish information relating to the restoration to local newspapers as a matter of news for publication without expense to the Government.

7. **Report on power possibilities.**—Lands withdrawn under the first or second forms, act of June 17, 1902, in connection with reclamation projects and found to be no longer needed in connection with the construction of the projects in question, and, therefore, recommended for restoration, may in some instances possess possible value as water-power sites or for sites which could be utilized in future public or private irrigation enterprises. It is desired, therefore, by the department that the field officers of the service accompany their recommendation for restoration of lands with a statement as to the water power or irrigation possibilities of the lands recommended to be restored and an expression of opinion as to whether the lands, or any of them, should be reserved under the provisions of the act of June 25, 1910 (26 Stat., 847), as amended by the act of August 24, 1912 (37 Stat., 497).

8. **Irregular tracts.**—Whenever it is desired to release from reclamation withdrawal and restore to entry under the general public land laws, parts of legal subdivisions no longer required for reclamation purposes, which can not be described in terms of legal subdivisions, the project manager will prepare and forward to the Washington office the necessary recommendation accompanied by diagrams in duplicate showing the proposed restoration.

9. **Correspondence.**—The following procedure will be followed:

(a) All correspondence concerning restorations of lands in primary projects will be conducted directly between the Washington office and the office of the project manager, with copies to the chief of construction, the recommendation of the project manager being secured in all cases.

(b) All questions affecting the restoration of lands in secondary projects requiring report from the field will be submitted to the senior engineer in the district affected for his comment and recommendation and submission through the chief of construction, who will forward the same to the Washington office with such comments and suggestions as may be found expedient.

RIGHTS OF WAY.

1. **Conditions on granting.**—The department has authority to attach conditions to the approval of right-of-way applications made under the acts of March 3, 1875 (18 Stat., 482), and March 3, 1891 (secs. 18–21, 26 Stat., 1095; 39 L. D., 86, 174, 209). Where the right of way applied for crosses lands withdrawn under the reclamation law, the applicant is required to sign a stipulation of a form approved by the department. Where the irrigable area within the right of way has been covered by public notice, the applicant is required to make tender of a sum equal to the building charge for such irrigable area as fixed by the latest public notice. Where the project is under construction but no public notice has issued, the amount to be paid will be determined by the department in each particular case. In such case a preliminary statement of the building charge should be given in reporting thereon.

2. **Acts of Congress, citation of.**—All maps or plats of rights of way or permits for various easements submitted for approval and all correspondence relating thereto should bear reference to the act of Congress authorizing such easement or permission. (First Asst. Sec., Jan. 18, 1915.)

3. **Valid water right necessary.**—The act of March 3, 1891, and the regulations thereunder, require that prima facie evidence of the water right in connection with the right of way sought be furnished by the applicant. Where the Government has filed notices of water appropriation, applications for rights of way based upon appropriations initiated subsequent to the assertion of the claims of the Government should not be allowed. The department has therefore directed the General Land Office to refer all such applications to the Reclamation Service for report as to all the pertinent facts, including date, manner and extent of the water appropriation by the United States, whether and to what extent the right of way sought would conflict with the interests of the United States, and any other matters affecting the application in question. (Secretary to the Commissioner of the General Land Office, Oct. 22, 1910; D. O., Nov., 1910.)

4. **Power permits, reports to Forest Service on.**—District foresters are under instructions to refer each application for a preliminary water-power permit affecting a stream which is tributary to the water supply of a reclamation project to the project manager for report whether the granting of the preliminary permit will be in any

way objectionable. Such requests from the Forest Service should be given prompt attention, and the Washington office should be furnished with a copy of the project manager's report.

5. **Serial numbers.**—In reporting on right-of-way applications and in any correspondence relating thereto, reference should be made to the General Land Office serial number, found on the tracing, as well as to the Reclamation Service number in the upper right corner of the form letter.

6. **Railroad crossings, reclamation town sites.**—When application for railroad right of way is allowed, under the act of March 3, 1875 (18 Stat., 482), on or across town sites established under the provisions of the acts of April 16, 1906 (34 Stat., 116), and June 27, 1906 (34 Stat., 519), there should be reserved to the United States the right to cross such railroad right of way with streets, sewers, transmission lines for telegraph, telephone, electric power, etc. Practically the same reservation should be made in the case of town sites as is made where rights of way cross other withdrawn lands. (See par. 1.) Form of stipulation authorized by the department January 31, 1913, should be used in all cases where applicable.

7. **Rights-of-way notice under act of August 30, 1890.**—Where right of way desired by the United States is reserved under the act of August 30, 1890 (26 Stat., 391), the landowner should be served with notice on Form 7-263 that his land is subject to such reservation and that it is proposed to construct a ditch or canal over the same. Such notice should be given only after determination as to the construction of the ditch or canal and its definite location, as the issuance of such notice prior to that time might commit the service to the construction of a ditch or canal over a particular route, and thus introduce a complication which might interfere with negotiations for the purchase of rights of way at other points along the same line or with proceedings for condemnation.

8. **Contracts for purchase of improvements.**—In making contracts for the purchase of improvements upon rights of way for canals and ditches claimed by the United States under the act of August 30, 1890, it is desired that a confirmatory clause to the following effect be inserted:

ART. —. It is understood and agreed by and between the parties hereto that the strip of land herein described is subject to appropriation and use for right of way for canals or ditches constructed by the authority of the United States under and by virtue of the act of Congress of August 30, 1890 (26 Stat., 391), and the contractor hereby confirms to the United States a right of way upon said strip of land for such use.

9. **Ditches and canals crossing railroads.**—Contracts for crossing of railroad rights of way by ditches and canals of any reclamation project where the railroad was built before the reclamation withdrawal should contain the following:

(a) A definite plan of construction adequate to assure the safety of the railway traffic, the cost to be paid by the United States.

(b) The railroad company to take necessary measures to maintain the safety of the crossing, including changes of grade or other changes by the railroad; but the company should not be empowered to stop the flow of water in the canals for a longer time than is reasonably necessary.

(c) The United States to pay the reasonable cost of maintaining safety at the crossing in its original status, or as affected by changes necessitated by natural phenomena or by law, but it should not be obligated to pay any other expense connected with the crossing.

To contract on these conditions would be more advantageous to both parties than condemnation proceedings. If the company is unwilling to so contract, condemnation proceedings should be recommended.

10. **Roadways, etc., on unentered public lands.**—Where the service has built or acquired a road, telephone, telegraph, or transmission line or other structure of that nature upon unentered public land, report should be made to the Washington office as soon as practicable after the completion thereof, giving the status of the lands crossed. Where the rights of way for such structures cross first-form withdrawn lands, not needed for any other purposes, the report should be accompanied by (1) draft, in triplicate, of indenture in the form authorized by the department June 11, 1914, shown below (par. 11) for signature by the prospective entryman of the land, accompanied by blue print, in triplicate, showing accurately the location of the easement across each smallest subdivision, and (2) a recommendation for the restoration of the land. Additional copies of the form of indenture and of the blue print will be furnished the local land office by the project manager when requested. Before recommending the restoration of such lands the Washington office will inform the General Land Office of the intended recommendation for restoration, and of the easement to be reserved. Copies of the indenture forms, together with the blue prints, will be furnished the General Land Office. Upon being advised by the General Land Office that the contracts and blue prints have been filed in, and proper notations made on, the records of the local land office, so that entries may not be made for the lands affected unless accompanied by an executed indenture, the Washington office will recommend the restoration of the land. The form of indenture does not provide for a reservation in the patent, in view of the fact that the indenture will be recorded in the county records. After the entry is allowed and the Washington office so advised by the General Land Office the

land will again be withdrawn to protect the rights of the United States in case of relinquishment.

11. *Form of indenture.*—The following is the form of indenture referred to in paragraph 10:

This indenture, made the day of, 191..., between the party of the first part, his heirs, executors, administrators, and assigns, hereinafter referred to as grantor, and the United States of America, in pursuance of the terms of the act of Congress of June 17, 1902 (32 Stat., 388), the party of the second part, its successors and assigns, hereinafter referred to as the United States, witnesseth:

Whereas the grantor is an applicant to make entry upon the following described land:

And whereas the United States acting in pursuance of the reclamation act of June 17, 1902 (32 Stat. L., 388), has heretofore constructed in connection with the project, ... (a roadway, transmission line or other structure to be named) across said described tract, the location of which is particularly described on the blue print hereto attached and made a part hereof;

And whereas the United States is willing that the grantor may make entry upon said described tract on the condition that there shall be reserved to the United States an easement for the operation and maintenance of the said works in the location above described across the said tract:

Therefore the grantor agrees for and in consideration of the premises and the sum of \$1 lawful money, to him in hand paid by the United States, the receipt whereof is hereby confessed and acknowledged, that if and when said entry is allowed by the United States, there shall be reserved to the United States out of the tract entered an easement in the location above set out for the operation and maintenance of said structure, as may be deemed advisable by the United States, or its successors in control of the said project. The grantor further agrees that such reservation shall be operative in favor of the United States and its successors, notwithstanding the issuance of patent for the entire tract.

In witness whereof the said grantor has hereunto set his hand and seal the day and year first above written.

_____. [SEAL.]
(Acknowledgment.)

12. *County roads across Government canals, etc.*—Where a county road is planned to cross an existing canal or other irrigation work of the Reclamation Service the expense of constructing and maintaining a bridge or other proper crossing should be borne by the county and appropriate contract entered into between the United States and the local authority making reasonable provision for non-interference in the operation and maintenance, rebuilding or change in location of the canal. When a Government canal or other irrigation plant is planned to cross an existing county road, the United States should build an appropriate bridge or other crossing, and the county authorities will be expected to maintain the same. Any questions which may arise in connection with this matter should be referred to the Washington office. Forms of contracts required under this paragraph should be drawn in the field and referred to the Washington office before execution, so that advance approval of the form and authority to execute, may be received from the department.

SALOONS ON WITHDRAWN LANDS.

A withdrawal of lands under the first form is an appropriation of all lands within the limits of such withdrawal, except lands to which a vested right or interest had attached at the date of the withdrawal. (34 L. D., 155.) The Secretary of the Interior thereafter has complete control over such lands. If a saloon is established upon or liquors sold on such lands proper action should be recommended to secure an injunction through the United States attorney.

STATE AND MUNICIPAL LAWS, COMPLIANCE WITH.

1. **Registration of motor vehicles.**—A State or municipal law requiring a registration fee in lieu of taxes is not applicable to a motor vehicle owned by the United States as the State has no power to impose a tax upon the use by the Federal Government of its property or instrumentalities. (See *Ohio v. Thomas*, 173 U. S., 276.)

2. **License to operate car.**—An employee who operates a car owned by the Federal Government is not required to pay for the license required by State or municipal law. (15 Comp. Dec., 231.)

3. **Private irrigation system acquired by the United States.**—A private irrigation system acquired by the Government is taken free from any obligation or control of State authorities theretofore existing (37 L. D., 6).

4. **Condemnation proceedings.**—Condemnation proceedings brought under the reclamation law, are not subject to limitation by State statutes but the State procedure is to be followed as closely as practicable. The necessity for taking the property need not be determined by a state commission, and it is not required that the damage shall be assessed and paid before the Government may be allowed to take possession. (*U. S. v. O'Neill, et al*, 198 Fed., 677.)

5. **Costs in State court proceedings.**—June 30, 1914, the Comptroller of the Treasury, in a case where the United States on behalf of the Reclamation Service was party to a suit in a State court, held as follows:

It is my opinion that in view of the fact that the Reclamation Service must proceed in many cases in conformity with State laws, and it is necessary to institute cases in State courts or intervene in those brought by others, the expense of such proceedings in State courts in the payment of lawful costs, including expenses of necessary printing and costs of appeal bonds, should be charged to the reclamation fund. It is understood, of course, that such proceedings on behalf of the United States will be instituted by or with the authority of the Attorney General, and that it is not intended by this decision to include compensation to attorneys or counsel.

STRUCTURES OVER DITCHES AND CANALS.

The instructions relative to the granting of revocable licenses on Form 7-296 and 7-296a will be found under the title "Contracts," paragraphs 52-54, inclusive. No right should be granted for structures over Government canals and other irrigation works or Government property of any kind, other than by such revocable license, except upon authority specifically granted and upon form approved in advance. Drafts of such contracts should be submitted to the Washington office before execution, accompanied by full explanation of the necessity of granting other than a revocable license. These instructions apply also to contracts where the United States is obtaining a right of way or other property and the contractor insists upon excepting or reserving an easement or right other than a revocable license over the property of the Government. In such a case a report should be made stating reasons why it would not be preferable to resort to condemnation.

SUBLATERALS, OPERATION OF.

The control and operation of sublaterals constructed or acquired under the reclamation act are retained by the Secretary of the Interior to such extent as to assure to the water users served therefrom the full use of the water to which they are entitled. (Regulations Feb. 27, 1909, 37 L. D., 468.) Where the care, operation, and maintenance of project works are transferred by the Secretary to an irrigation district or water users' association under section 5 of the reclamation extension act (38 Stat., 686), appropriate provision will be made in connection with such transfer to insure proper protection of the interests of the water users and the United States.

SUPPLEMENTAL CONSTRUCTION.

1. **Agreements.**—No new construction work shall hereafter be undertaken in connection with any project or any separate unit of any project whereof the construction charges have been announced by public notice unless and until a majority of the water-right applicants (who have accepted the terms of the extension act for land lying within the area to be affected by the proposed increased charges) shall have executed written agreements to pay the proposed increased construction charges, provided that 90 per cent of the lands within such area so affected shall be subject to the extension act; otherwise written agreements must be obtained from a sufficient number of the other water-right applicants or landowners to cover a total of 90 per cent of the lands within the area to be affected by the proposed increase in charges.

2. **Plans.**—In order that it may not be necessary to secure the approval of the water users for each separately proposed improvement or betterment, it is suggested that when it is desirable to take up such work the project manager shall prepare plans for all such improvements and betterments as appear necessary and the funds for which are available from the appropriation for the current fiscal year (inclusive of drainage), such plans to show:

- (a) The total cost.
- (b) The amount chargeable to operation and maintenance account for that fiscal year.
- (c) The amount chargeable to supplemental construction (if involving an increase in the construction charges).
- (d) The amount chargeable to project construction cost (if there is an available margin between actual cost and the estimated returns under existing public notices and orders).

3. **Charges.**—If the amount charged by paragraph 2 (c) constitutes an increase of 50 cents or less per irrigable acre, the agreement to be submitted to the water users will provide for an increase in the construction charges amounting to 50 cents per acre. If over 50 cents and less than \$1 the agreement shall provide for an increase in the construction charges amounting to \$1 per acre, and so on, proceeding in units of 50 cents per acre.

4. **Definition.**—Supplemental construction is defined as the improvement of a completed portion of an irrigation or drainage system by additions to or substitution for existing canals and structures on

a project, or the unit of a project as to which the construction charges have been announced. In the case of the renewal in whole or in part of structures that are decayed, demolished, or abandoned, the difference in the cost of substituting the improved structure over replacement in kind will be charged to supplemental construction account, while the cost of replacing in kind will be charged to maintenance account. The cost of original construction work of a drainage system or any part thereof installed to maintain the irrigability of the lands of a project which has been opened by public notice, if the estimated cost thereof was not included in the construction charges as announced, will be charged to supplemental construction account. But if replacement in kind is not practicable from an engineering or financial standpoint, the most practicable plan of replacement may be adopted as operation and maintenance. Any case of this kind involving a difference in cost over replacement in kind in excess of \$500 shall be taken up with the governing body of the water users and if they do not agree with the officers of the Reclamation Service in classing the expenditures as operation and maintenance, the matter should be reported to the Washington office.

5. Requirements of law.—Section 4 of the reclamation extension act of August 13, 1914 (38 Stat., 686), provides that—

No increase in the construction charges shall hereafter be made after the same have been fixed by public notice except by agreement between the Secretary of the Interior and a majority of the water-right applicants and entrymen to be affected by such increase, whereupon all water-right applicants and entrymen in the area proposed to be affected by the increased charge shall become subject thereto.

Accordingly, as heretofore instructed, no obligation of any kind shall be assumed on account of supplemental construction until after the securing of agreements with a majority of the water-right applicants and entrymen in the area to be affected by the increased charges. Because of the expense involved in securing such agreements, it is essential that the work of the project shall be so planned that, as far as practicable, all necessary supplemental construction which can be anticipated for several years shall be provided for at one time.

6. Costs.—The estimated cost of the work which is to form the basis of the increase in charges must be carefully determined so that the engineers are certain that the amount estimated shall be sufficient to complete the work as planned. No changes in the plans that will tend to affect the charges shall be adopted after the agreement forms are issued, except by authority of the commission (which will not approve any changes of plans the cost of which is not sufficiently provided for by the proposed increase in charges). If changes of plans are such as to effect a reduction in the proposed increase of charges, such charges will be reduced accordingly.

7. Area affected.—The irrigable area to be affected by the proposed increased charge shall be carefully determined so as to include all lands which will, either directly or indirectly, benefit by the additional expenditure; other lands may be included if deemed advisable in the discretion of the Secretary. The number of water users, the area subject to the terms of the extension act, and also the number of water users and the area not subject to that act, should also be ascertained.

8. Project manager's report.—After conferring with the water users, association or irrigation district, the project manager shall report upon the proposed work, giving estimates thereof with a diagram showing the location of same, the data required by paragraph 7, and the proposed distribution of the increased charge among the future installments.

9. Payments.—In cases where the repayment of the cost of supplemental construction shall be postponed until the expiration of the 20-year period provided by the reclamation extension act, such charges shall be made payable in annual installments, each of which, except the last, shall be not less than seven per cent of the highest construction charge fixed by public notice affecting such lands.

10. Form of agreement.—Upon the approval by the commission of the proposed work, the project manager will cause to be printed such explanatory statement as may be necessary, and also agreements in the following form:

AGREEMENT.

NOTE.—If you agree to the proposed increase of \$..... per acre, fill in the description in paragraph (A) and sign the agreement in paragraph (C). If you do not agree, fill in description in paragraph (A) and sign the refusal in paragraph (D).

(A) I, the water-right applicant (or entryman) for the following-described land, sec., T., R., ... project, State of, .., acknowledge receipt of full information relative to the performance of the work described below which will cause an increase in the construction charge for any land amounting to not more than \$..... per irrigable acre. Such increased charge shall be added to the construction charge and payment thereof distributed over the remaining unpaid installments of construction charges in the following manner: per cent shall be added to the installment becoming due December 1, ..., and December 1 of each year up to and including the twentieth installment. (Such increased construction charge may be paid in additional annual installments after the last of the installments now payable under the reclamation extension act, being annual installments at \$..... per irrigable acre and one final installment at \$..... per irrigable acre.)

NOTE.—Omit either the sentence in parenthesis or the preceding one, as may be authorized by the commission.

(B) Payments for this increased charge shall be applicable to water-right applicants and entrymen subject to the terms of the reclamation extension act in the area described as follows:

.....

(C) The work proposed to be performed is described as follows: (Insert description of work.)

I do hereby agree to the increased charges as above described, and this agreement shall constitute an amendment of my present water-right application when the terms hereof shall have been accepted by general order of the Secretary of the Interior.

.....
Water-right Applicant or Entryman.

Witness:

.....

(D) I do not agree to increased charges as above described.

.....
Water-right Applicant or Entryman.

Witness:

.....

(E) In order that your assent or dissent to the above agreement may be properly counted and recorded it must reach the project office at on or before, 19....

NOTE.—Subdivision (E) should be printed in bold-face type.

Notices so prepared should be sent to each water-right applicant or entryman subject to the extension act within the area affected, together with a return penalty envelope properly addressed and marked "Proposed increased charges, ...; district, ...; project, ..., 19...." A full list of such names should be certified by the project manager to the canvassing committee. The original list of names so certified shall accompany the original tally sheets when forwarded to the Washington office.

11. **Canvassing agreements.**—(a) All such envelopes returned to the project office shall be stamped with the date of receipt and numbered consecutively as received, and shall be opened only by a canvassing committee composed of three persons, one appointed for that purpose by the board of directors of the water users' association or irrigation district, the project manager, and the chief clerk. The date for opening such envelopes shall be two weeks in advance of the final date for the receipt of such agreements and the canvass thereof shall be closed not later than one week after said final date. When opened the agreements shall be listed by said committee. All those assenting to increased charges shall be listed and entered on a tally sheet especially prepared for such purpose entitled "In favor of increased charges." On this sheet shall be listed under appropriate column headings:

- (1) The number of the envelope in which agreement was returned.
- (2) The date of its receipt stamp.
- (3) The name of the water-right applicant or entryman.
- (4) The description of his land or farm unit.

- (5) The irrigable area thereof.
 - (6) The existing construction charges per acre.
 - (7) The amount of the proposed increase per acre of construction charges.
 - (8) The names of witnesses to the signature.
 - (9) The signature of the person making the entry on the list.
 - (b) All those dissenting to increased charges shall be recorded and entered on a tally sheet specially prepared for such purpose, entitled "Against increased charges." The column headings and the record shall be the same as above specified.
 - (c) At the bottom of each such tally sheet shall be provided a certificate for signature by all of the members of the committee certifying to the correctness thereof. The original final tally sheet so certified and properly dated shall be forwarded promptly to the Reclamation Commission at Washington, D. C.
 - (d) If the final tally shall show that agreements have been made by a majority of the water-right applicants and entrymen subject to the extension act in the area to be affected by the increased charges, the Secretary of the Interior will by general order ratify the individual agreements of those assenting, and will announce increased charges in conformity therewith which shall be applicable to all lands in said area which are subject to the terms of the reclamation extension act, and the work may thereupon be initiated.
 - (e) All assenting and dissenting agreements shall be preserved in the files of the project office. With the final tally sheets forwarded to Washington there shall be a copy of the form of agreement. One copy of the tally sheet shall be preserved in the project files, one copy shall be furnished to the water users' association or irrigation district, and one copy shall be kept open for public examination on the bulletin board at the project office for 30 days.
12. **Posting notice.**—The canvassing committee shall from day to day during the three weeks in which the envelopes are being opened and recorded post daily notices giving the number of persons assenting and dissenting to the increased charges.
13. **Alternative procedure.**—When only a small number of persons are to be affected by the increased charge the procedure may be much simplified. The report provided for in paragraph 8 should be made and after approval of the commission agreements should be obtained in any convenient way, following as closely as practicable the form of the agreement specified in paragraph 10. Appropriate certification of the results shall be made by the project manager to the commission, and if a sufficient number of agreements have been obtained, appropriate order will be issued and authority to begin work will be given as in paragraph 11 (d).

14. **Lands not subject to extension act.**—The above instructions relate only to those who hold lands subject to the extension act. In any case where it would be necessary to secure agreements from those not subject to the extension act in order to make the additional work financially feasible, appropriate report shall be made by the project manager and the commission will give the necessary instructions.

15. **Public notice.**—A public notice announcing the increased charge will be issued if a majority of the water-right applicants affected make contracts when one of the following conditions exists:

(a) When any tract affected and subject to the extension act is not covered by such contract for supplemental construction.

(b) When any tract for which such contract has been made is not patented and no homestead proof has been made and accepted for it under the act of June 23, 1910. (36 Stat., 592.)

16. **When public notice is not necessary.**—When contracts for supplemental construction have been made for all the land affected, and neither of the conditions in paragraph 15 exists, no public notice will issue.

17. **Distributing payments.**—In case the payment of the increased charge is to be distributed over the remaining unpaid installments of construction charges, the first installment should, in every case when practicable, be at the same rate as under the original water-right application, and thereafter at current rates until the final installment, which must include the unpaid balance. If this balance would be too great, the payments should be distributed equally over the remaining installments, or if that is not practicable the payments may be made after the 20-year period in the manner provided by the law.

18. **Data to accompany tally sheets.**—With the final tally sheets forwarded under 11 (c) a statement regarding the status of the land affected must be submitted showing—

(a) The number of owners of patented land and the total acreage, divided into two classes showing those subject and those not subject to the extension act.

(b) The number of holders of unpatented land not entered under the reclamation act and the total acreage for which homestead proof has been made and accepted by the General Land Office, divided into two classes as in (a).

(c) The number of holders of unpatented land entered under the reclamation act for which homestead proof has been made and of desert entries made subject to the reclamation act, and the total acreage, divided into two classes as in (a).

(d) The number of holders of unpatented land and the total acreage for which homestead proof has not been made and accepted by the General Land Office, divided into two classes as in (a).

19. **Small areas affected.**—The reports above furnished are equally necessary where small areas are affected, as provided for in paragraph 13.

20. **Installments.**—Where an increase of construction charge is to be paid after the last installment of the regular construction charge section 4 of the reclamation extension act provides that each installment of such increase "shall be at least equal to the amount of the largest installment as fixed for the project by the public notice theretofore issued."

21. **Payment of balance.**—Accordingly, the last installment must not be less than such largest installment, which is 7 per cent of the construction charge, as specified in section 1 of the extension act. If the balance due is not sufficient to be divided into two installments of such size the entire balance must be paid as a final installment. For example, in the case of a construction charge of \$50 per acre the largest installment at 7 per cent would be \$3.50 per acre. If the increased charge is \$8 per acre, if paid in two additional installments, the first must be not less than \$3.50 per acre and the second \$4.50 per acre.

TAXES, UNITED STATES NOT LIABLE FOR.

Property of the United States is not subject to taxation by the States. (*Van Brocklin v. Tennessee*, 117 U. S., 151.) This exemption, however, can not be claimed where the property is acquired subject to taxes then attached to the property. In the purchase of land the Service should insist that taxes which would be a lien if the sale were made to an individual be paid by the vendor.

TOWN SITES.

1. **Procedure.**—For instructions on withdrawals, appraisal, reappraisal, and sale, see paragraphs 132-147, General Reclamation Circular, approved May 18, 1916.

2. **Withdrawals, authority for.**—The acts of April 16, 1906 (34 Stat., 116) and June 27, 1906 (34 Stat., 519) authorize the Secretary of the Interior to withdraw, survey, and subdivide such town sites as the interests of the public may require.

3. **Location.**—Careful attention should be given to the location of town sites which should be selected with reference to the feasibility of securing an ample and convenient supply of potable water either from natural sources or irrigation systems, and, if possible, with reference to securing power for electric lighting and other uses.

4. **Recommendation.**—Immediately after determining upon a specific location for the establishment of a town, the project manager should forward recommendation for withdrawal, giving the land-office description of the tract required. If the land is already withdrawn under the reclamation act, recommendation should be made for a change of the form of withdrawal to a reservation under town-site acts. Recommendations for town-site withdrawals within Indian reservations will be made to the Secretary of the Interior through the Indian Office.

5. **Prior filings.**—If a desirable town site is already covered by entries, it may be possible to secure such site by readjusting farm units with this end in view, or the entrymen may be induced to relinquish sufficient portions of their holdings to render the site available.

6. **Survey.**—In order that proper arrangements may be made for the survey of the townsites and the subsequent sale of the lots, requests for authority to make the necessary surveys should be forwarded to the Washington office in ample time to permit the surveys to be submitted in accordance with paragraph 7. (See also Surveys.)

7. **Town-site plat.**—About six months prior to the date when it is proposed to hold the first sale of town lots, a plat (in quadruplicate) of the town site showing the entire area subdivided into blocks and lots should be submitted to the Washington office, accompanied by three sets of the field notes. The plat and field notes should be prepared in strict accordance with "Specimen field notes and plats for subdivisions of sections and surveys of irregularly shaped tracts, town sites, and reservoir sites." (Revision of Aug. 1914.)

8. **Data to accompany plats.**—Accompanying the plats and field notes should be (1) appropriate recommendation as to the lots and blocks to be included in the sale, (2) names of three persons for appraisers (one of whom may be an employee of the Reclamation Service), (3) name of a superintendent of sale, (4) per diem compensation which should be paid to appraisers in addition to actual and nec-

essary traveling expenses, (5) maximum number of days during which a per diem allowance should be made, (6) date prior to which appraisers must begin the work, (7) date by which the appraisal must be completed, (8) date on which the sale is to take place, (9) maximum number of days the service of an auctioneer will be required, (10) terms of sale, and (11) terms of sale at date of public sale and subsequently. Deferred payments subject to interest at 6 per cent are authorized by act of June 11, 1910 (36 Stat., 465), but this privilege should usually be limited to sales made on the date fixed for the sale, and cash in full required for subsequent purchases at the local land office.

9. **Street names.**—Some simple systematic method of naming the streets of Government townsites should be adopted. The streets in one direction shall be numbered; and in the other designated by the letters of the alphabet, or by a class of names in alphabetical order, as names of flowers, trees, colleges, etc. Names of living persons should not be used.

10. **Appraisal and sale of lots.**—Appropriate instructions will be mailed to the appraisers by the Commissioner of the General Land Office, and after approval of the appraisal, instructions will be issued for the sale of the lots in accordance with General Reclamation Circular, May 18, 1916.

11. **Reappraisal of unsold lots.**—The act of June 11, 1910 (36 Stat., 465), authorizes the reappraisal and sale of unsold lots, and also authorizes the Secretary, in his discretion, to require payment for such lots in full at the time of the sale or in annual installments, not exceeding five. Where the Secretary directs the reappraisal of unsold lots, the reappraisal will be conducted under the regulations provided for under the original appraisal of lots. The lots to be reappraised will not, from the date of the order thereof, be subject to disposal until offered at public sale at the reappraised value. The lots so offered at public sale will then become subject to private sale at the reappraised price.

12. **Water to be supplied under contract.**—Where lands are subdivided into such form and areas as to indicate a use thereof for town site purposes, water may be furnished for the entire area, so subdivided by contract. (See Water rights.) Applications by individual lot owners for water rights under the reclamation act for lands which have been subdivided into town lots will not be allowed, but contracts under the townsite law may be made with them. Water may be supplied to towns from reclamation projects, but delivered to some convenient point to be handled and distributed to the inhabitants by the municipal authorities in accordance with the provisions of the act of April 16, 1906. (Sec., Mar. 21, 1911, 39 L. D., 591.)

WATER, APPROPRIATION OF.

(See also Rights of way.)

1. **Notice of application.**—Before taking any steps toward the appropriation of water in any State, either by posting and recording notice of appropriation, or filing application for permit to appropriate, as the State law may require, full report as to the advisability of making such appropriation should be submitted to the Washington office. Such report should be accompanied by opinion of the local district counsel as to the legal phases involved, and particularly indicating the method of making appropriations of water under the State law and the obligations that will rest upon the United States with respect to the amount of and time for the construction necessary for perfecting its claims if the appropriation is made. Such appropriations are required to be made in the name of the Secretary of the Interior, and authority for field officers to act in his name can be obtained by applying to the Washington office at the time of making the report above mentioned. If the authority to make the appropriation requested is granted the procedure thereafter should be in strict accordance with the laws of the State or States, if the stream lies in more than one State, governing such matters (sec. 8, reclamation act), and should be in charge of the local district counsel, who should confer with the project manager and keep him advised. He should report to the chief counsel the various stages of progress made, with copies of all essential papers executed or filed.

2. **Priorities to be ascertained.**—Before undertaking any project the amount and priorities of all vested and inchoate water rights in the watershed of the proposed project should be definitely determined and the rights of all parties fixed in order that the available supply for storage and diversion under the Government system may be ascertained. This may be done by limiting agreements wherein all of the vested water-right owners agree upon their respective rights or by an adjudication of all rights upon the various streams involved or by a combination of the two.

3. **Navigable streams.**—Congress has control over navigable streams and the waters thereof, and no claim based on appropriation of such waters for irrigation purposes made without the sanction of Congress should be recognized by the Secretary as valid. (Feb. 6, 1905, 33 L. D., 391.)

WATER, DELIVERY OF.

The Secretary of the Interior may, by rules and regulations, control the delivery of water furnished in pursuance of contract or water-right application, and may regulate individual headgates or withhold the waters in order to enforce such rules or regulations. (37 L. D., 468.)

1. **Procedure.**—Whether surplus waters available in Government reservoirs constructed under the reclamation act will be used to increase the project area, if practicable, or to supplement a deficient water supply for irrigated lands not within the Government project, or be furnished nonproject lands without a water supply, will depend upon the merits of each case presented. Before making any contract for the utilization of such surplus waters full report upon the facts and circumstances involved should be made to the Washington office through the chief of construction for consideration and submission to the Secretary of the Interior for decision.

2. **Approved articles.**—In order that the procedure under this act may be consistent and uniform on all projects, the course adopted in the Washington and Idaho irrigation district cases should be followed as nearly as practicable, and there should therefore be incorporated as part of all contracts under section 2 of the Warren act of Feb. 21, 1911 (36 Stat., 925), an article substantially in the language of one of the following which is most appropriate to the case in hand:

(a) **ARTICLE** —. It is hereby agreed that so far as the same may be legally possible the portions of said project and the several units thereof and such other units of said project as may be hereafter constructed shall be on an equal footing with respect to priority among themselves and with the contractor, and the lands of all other contractors with whom the United States may hereafter contract under said sections of the Warren Act and all such contracts hereafter made shall contain a similar declaration with regard to priority. The Secretary of the Interior shall, under the terms of said reclamation law, provide for the irrigation of no greater areas of land in the aggregate than will, in his opinion, render it practicable, in all years of ordinary run-off, to supply the several units of said project and the lands of the said contractors under the said sections of the Warren Act, with the respective amounts of water fixed and stipulated by the Secretary. In case of unusual shortage of water, so as to make it impossible to supply fully all of the lands in this paragraph referred to, each said unit and each said contractor shall be entitled to a supply of water diminished pro rata measured at the respective points of measurement, and it shall be the duty of the proper officer of the United States in charge of the storage reservoirs constructed by the Government and within the watershed of said project to divide the water in accordance with the provisions of this paragraph. The pro rata share herein provided for shall be determined by the ratio of the water supply available for all portions of the said project, and for all parties making contract similar to this under the reclamation law involving the waters of said project drainage basin, to the total water supply fixed and stipulated for said project and contractors. Delivery of such pro rata share shall be received by the contractor in full satisfaction of the quantity of water herein contracted for on behalf of the district for each irrigation season.

Or

(b) **ARTICLE** —. The United States will furnish the contractor the use and benefit of acre-feet of storage capacity in the said reservoir, and will each year turn out of said reservoir for the contractor as nearly as is reasonably practicable the proportionate part of the stored water actually available from said reservoir that acre-feet of storage capacity is of the total available storage capacity of said reservoir, namely per cent of the stored water actually available from said reservoir, measured and delivered at the outlets of the reservoir.

WATER, RENTAL OF.

1. **Forms.**—Section 11 of the reclamation extension act of August 13, 1914 (38 Stat., 686), provides that whenever water is available and it is impracticable to apportion operation and maintenance charges as provided in section 5 of that act, the Secretary of the Interior may, prior to giving public notice of the construction charge per acre upon land under any project, furnish water to any entryman or private landowner thereunder until such notice is given, making a reasonable charge therefor, and such charges shall be subject to the same penalties and to the provisions for cancellation and collection as therein provided for other operation and maintenance charges. When this course is followed no charges for water accrue against any lands unless a water-rental application is made, and it is not compulsory for the entryman or landowner to make such application. Suitable forms of rental agreements may be obtained upon application to the Washington office.

2. **Charges.**—The charges to be paid for water rentals under section 11 of the reclamation extension act and the charges to be made under the Warren Act shall be determined so far as practicable upon the following basis:

(a) Two per cent of the construction charge plus the minimum operation and maintenance charge should be the charge for the minimum quantity of water furnished as fixed for the project. Additional water supply should be paid for at the same rates per acre-foot as are established in the operation and maintenance charges for the project.

(b) If the construction charge or the operation and maintenance charge has not been fixed for the project a preliminary statement thereof shall be made, to form the basis of charge as above outlined. In such cases the contract should provide for the redetermination of the charge when the construction, operation, and maintenance charges are fixed.

3. **Exceptional conditions.**—In any case where the above rules are unsuited to the local conditions, the facts should be laid before the supervisor of irrigation for appropriate recommendation.

WATER-RIGHT CERTIFICATES.

1. **Private lands.**—Water-right certificates are issued to private land owners upon the completion of all building or construction payments required under the reclamation law or prior to such full payment upon making satisfactory showing as required by section 1 of the act of August 9, 1912 (37 Stat., 265), namely, upon proof of the cultivation and reclamation of the land to which the certificate applies to the extent required by the reclamation act for homestead entries, namely, one-half the total irrigable area of the tract. In the said act these are called "final water-right certificates."

2. **Homestead entries.**—In the case of homestead entries the declaration of the right to the use of water found in the final water-right certificate is included in the patent becomes evidence of the patentee's title to the water right just as the final water-right certificate is evidence of the title to the water right of the private landowner.

3. **When not required.**—Final water-right certificates are not required for and will not be issued in the following cases: (a) Lands entered under the reclamation act; (b) desert-land entries for which water-right application has been made; (c) entries of ceded Indian lands, whether patents for such lands are issued under acts of August 9, 1912, or otherwise, but patent in each of these three cases carries with it the water right to which the lands patented are entitled. In all other cases, that is, in cases of lands in private ownership, and in cases of homesteads where entry was made prior to the reclamation withdrawal, final water-right certificate will issue as herein provided. (Par. 59, General Reclamation Circular.)

4. **Proof.**—The proof required before the issue of final water-right certificate is given in detail in the General Reclamation Circular, paragraphs 57 to 72.

5. **Ownership.**—In all cases of application for final water-right certificates for lands in private ownership and in case of homestead entries made prior to withdrawal under the reclamation act, the applicant shall make affidavit, corroborated by two credible witnesses, to the effect that he is the owner in fee-simple of the lands for which water right application has been made and for which certificate is asked, or has made and had accepted final proof in case of such homestead entry, and that in either case he has complied with the provisions of the respective statutes under which application for water-right certificate is made.

6. **Forms.**—The project manager, upon the filing of such affidavit, shall investigate the case and if in his opinion all statutory requirements have been complied with, shall issue final water right certificate as provided by the General Reclamation Circular. Form 7-501 will be used in case of full payment, and Form 7-501a in case of partial payment.

7. **Abstract of title.**—Where application is made for final water-right certificate for lands in private ownership or for homestead entries made prior to the withdrawal under the reclamation act on partial payment of the building charge pursuant to and under the act of August 9, 1912 (37 Stat., 265), the applicant shall, in addition to the filing of said affidavit, furnish abstract of title of the lands for which water-right certificate is asked, which abstract of title shall subsequently be extended to show recording of any instruments necessary to show good title in the applicant and to show the final water-right certificate when issued and recorded. The applicant shall also deposit with the project manager the fees required for recording said final water-right certificate and upon issuance of the final water-right certificate extending the abstract of title to cover the same, the project manager shall cause the same to be duly filed for record in the real estate records of the county where the land is located and the abstract extended to cover the same. The term "good title" as used in these regulations is such title as would ordinarily be merchantable in the community where the land is located. It need not be such an absolutely clear title as would be necessary if purchase of the land were being undertaken by the United States.

8. **Encumbrances.**—Wherever it appears in the abstract of title so filed that any lien or liens or encumbrances of any kind whatsoever exist on the land, final water-right certificate shall not issue until the applicant has procured from the holders of all such liens and encumbrances a consent duly executed and acknowledged and had the same recorded. Such consent shall be to the effect that the encumbrances so held shall be subsequent and inferior to the lien to the United States provided for in the final water-right certificate for which water right application is made, and the abstract shall be extended to cover all such consents so filed.

9. **Action by district counsel.**—Thereupon district counsel shall prepare a certificate as to the facts with regard to the liens shown to exist by the abstract and the consents, that they are inferior to the Government lien, and shall also certify as to the credibility or reliability of the company or person by whom the abstract is made, such certificate of District Counsel to become a part of the proof of the applicant for final water-right certificate. The abstract will be returned to the applicant after having served this purpose; it is unnecessary to require the applicant to furnish abstract for retention

by the Government, because the expense in many cases would be considerable.

10. Record books.—Each project office has been furnished with two record books, Forms 7-501 and 7-501a, marked volumes 1 and 2, respectively. These bound volumes are to be used to record final water-right certificates when issued by the project manager and will form an important part of the permanent records of the project.

11. Effect of issuance.—The execution of final water-right certificate has the effect of vesting in the water-right applicant absolute title to the water right involved, subject in case of partial payment to a lien for the payment of all sums still due, and in all cases to payment of the annual charges for operation and maintenance; and hence the necessity for extreme care in the preparation and issuance of these instruments.

12. Verification.—The final water-right certificate should not be executed until the notation (Record completed —) has been initialed by a responsible employee who shall have ascertained from a careful examination of the project records that full compliance has been made with the requirements of the law such as to entitle the applicant to the issuance of such certificate.

13. Recording and delivery.—Upon the execution of the certificate and before delivery to the water-right applicant, it should be recorded in the bound volume which has been provided for that purpose and mentioned in paragraph 10, care being exercised to the end that the record shall be an exact copy of the original certificate. The person preparing the certificate and recording the same should initial the certificate and record, and will be held responsible for absolute accuracy in this respect; and to insure this the original should be checked with the record thereof in the bound volume. *The original must not be delivered until the signature has been copied on the record.*

14. Index.—It will be necessary to keep a complete index of final water-right certificates issued. Card indexes should be made for this purpose and should be kept under the names of the parties and also by land descriptions.

15. Accuracy.—These record books are the official record of the United States in respect of water rights under reclamation projects and serve a purpose similar to that of the records of county recorders or of the records of the recorder of patents in the General Land Office. Certified copies of the record will be called for frequently and it must be absolutely accurate, every precaution being taken to this end.

16. Notation of recording.—When final water-right certificate has been issued and recorded the fact should be noted on the back of

the water-right application forming the basis thereof, citing the volume and page where recorded.

17. **Release of lien.**—In a case where Form 7-501a has been issued, which reserves lien to the United States for payments, whenever the water user has made full payment of the construction charges, including any supplemental construction charges, he may make application for release of lien, which should be filed with the project manager, who will transmit it to the Washington office with his certificate of full payment, whereupon the director will issue a certificate of full payment and release of lien, Forms 7-502 or 7-502a and forward the same to the project manager, who will make notation thereof on his record and transmit the release to the water user with the information that it would be to the water user's interest to record the release, as that will clear the record of the lien which exists against his water right as a result of the recording of the final water-right certificate with lien reserved. Form 7-502 is used in the case where patent was issued to a homestead entryman with reservation of lien and Form 7-502a is used in a case where final water-right certificate had issued for land in private ownership with reservation of lien.

18. **Instructions.**—In case any doubt arises or there is any difficulty in interpreting the instructions, the Washington office should be communicated with promptly and definite instructions secured before the issuance of final water-right certificate.

WATER RIGHTS.

(See also Water, appropriation of; Water, delivery of; Water, disposal of under act of Feb. 21, 1911; Water, rental of.)

1. **Circular of May 18, 1916.**—For laws and regulations relating to entries and water-right applications, see General Reclamation Circular approved May 18, 1916.

2. **Private ownership, definition of land in.**—The term "land in private ownership" includes all land patented at date of reclamation withdrawal or which was then covered by entry not afterwards canceled. For this purpose a desert-land entry and a homestead entry made prior to the reclamation withdrawal are classed as land in private ownership. But a desert entry for which water-right application has been made is subject to certain special conditions under section 5 of the act of June 27, 1906 (34 Stat., 520).

3. **Joint owners.**—No right to the use of water to irrigate a tract of land can be acquired by two or more joint owners unless each owner is a resident or occupant of the land as required by section 5 of the reclamation act. (Secretary's letter of Jan. 12, 1910.) May 5, 1916, the department authorized the acceptance of a joint water-right application by joint owners of land and adopted as applicable to such applications the rule laid down in *DeWolf v. Moore* (37 L. D., 110). This decision provides that in determining the acreage for which one, having an undivided interest in land irrigable under any reclamation project, may make and have accepted a water-right application, he shall be charged with that portion of the total irrigable acreage of said tract which is represented by the fractional extent of his undivided interest. If any one of the joint owners is for any reason disqualified from making a water-right application the joint application can not be accepted.

4. **Corporations.**—February 2, 1909, the department held that a corporation, otherwise competent, is entitled to acquire a water right under the reclamation act (37 L. D., 428), but by decision of July 11, 1913, the department reversed its policy in this regard, and no water-right application filed by a corporation after July 11, 1913, will be accepted. Water-right applications accepted in favor of corporations while the previous ruling was in force will not be interfered with, and such applications will be treated as valid and the corporation making same entitled to the same privileges with respect to availing itself of subsequent public notices as an indi-

vidual would have even though this necessitates the filing of a new water-right application as a substitute for or as supplementary to the original. December 5, 1916, the department authorized the execution of water-right applications by religious, educational, charitable, and eleemosynary institutions owning lands on reclamation projects, when such corporations are not organized or managed for private profit.

5. State lands.—Purchasers of State lands within a reclamation project who are in good standing—that is, not in default—may subscribe for and purchase water rights for the irrigable portion thereof and must comply with the requirements of residence, cultivation and payments.

6. State government, agencies of.—Agencies of the State government are entitled to become takers of water under a reclamation project upon equitable contribution to the cost of the project for the lands benefited. The limitations of the reclamation act, respecting residence of owners and area of land of one owner that may be served from reclamation works, have no reference to State agencies. (Sec., May 12, 1909.)

7. School grounds.—Water may be furnished free of charge to public-school grounds within reclamation projects. (Sec., Jan. 4, 1912.)

8. Application by desert-land entryman.—The water-right application of a desert-land entryman under the act of June 27, 1906 (34 Stat., 520), may be forfeited upon his failure to make the payments as they become due.

9. Applications to be numbered, reference to in correspondence.—In order readily to locate water users' accounts on the books of the Washington office, it is necessary in all correspondence concerning such applications to refer to the reclamation serial number; if at the time no reclamation serial number has been assigned to an account that fact should be stated. The land-office number in case of a corresponding entry is important in all matters dealing with the applications other than bookkeeping data.

10. Transfer, in case of, numbers to be used.—Where an applicant transfers his total holdings, the new application will bear the same reclamation serial number as the old application, but where an applicant transfers a portion only of his holdings a new reclamation serial number will be assigned to the new application which will also bear a reference to the reclamation serial number from which it is transferred. (See Farm-unit Plats, par. 24.)

11. Transfers of private land.—In case of transfers covering private land the assignment clause (par. 96 of General Reclamation Circular) is not to be used but such cases will be governed by paragraph 105 of said circular, and where new water-right application is filed, as

outlined in paragraph 105 of said circular the following indorsement should appear on the director's copy of the application: "Modifies account of -----, serial number -----."

In all cases of transfer of a part of land in private ownership where payments of water-right charges have been made the adjustment necessary on the books should be reported on Form 7-864.

12. Transfers of lands before patent, and assignment.—No recognition should be given to any attempted assignment under the act of June 23, 1910 (36 Stat., 592), until approved by the land office. Water-right applications by assignees in such cases made prior to approval by the land office should be received and action thereon suspended until the land office has approved the assignment. No water-right application, affidavit, or other paper is required in cases of transfers made after the acceptance of final proof on application for patent under the act of August 9, 1912. (37 Stat., 265.) Paragraphs 35 to 43 of the General Reclamation Circular have no application to such cases and are applicable only to cases under the assignment act of June 23, 1910. Proof under this latter act is not final proof, but is properly described as proof of residence, improvement and cultivation, and for convenience may be referred to as "preliminary proof," and the act of June 23, 1910, should invariably be mentioned.

13. Building charges in arrears.—In case of lands on which no part of the building charges had been paid, though due under the terms of a public notice, but on which all operation and maintenance charges then due have been paid, the entry and water-right application meanwhile having been held for cancellation, but the proceedings therefor not having been concluded, the entryman should be permitted to pay the operation and maintenance charges and should be furnished water until cancellation or until the further delivery of water is prohibited by the terms of section 6 of the reclamation extension act of August 13, 1914 (38 Stat., 686); upon cancellation the water supply shall be cut off and all payments theretofore made shall be forfeited, including all operation and maintenance charges already paid even though such charges apply to the current irrigation season. In cases where notices of unpaid charges elicit no response from the entrymen or water-right applicants, the entries and applications shall be reported for cancellation. (Sec., Feb. 9, 1909.)

14. Residence by private landowners.—An owner of private land who desires to obtain a water right under the project must be a resident on the land or in the neighborhood at the time he presents his application for a water right and until said application is entertained and approved by the United States. Upon such approval and acceptance a sale of a water right to him is consummated under the reclamation act, and thereafter he occupies the status of one who

has completed the purchase of a water right and who is entitled to a final water-right certificate upon the proof specified in the act of August 9, 1912 (37 Stat., 265), without being required to show that he is then a resident upon the land or that he lives in the neighborhood. (First Asst. Sec., Apr. 19, 1916.) Under the provisions of section 3 of the act of August 9, 1912, neither a private landowner nor his assignee may hold and receive water for land in excess of the limit of a single ownership for which a water right may be purchased, in no case exceeding 160 acres, before full payment of all installments of charges, (Sec., Oct. 18, 1912, to M. V. O'Shea.)

15. Agricultural or horticultural lots.—Where private lands are subdivided into relatively small tracts for agricultural or horticultural purposes, water-right applications should not be accepted for lands described as such lots until a plat showing the lands so subdivided and with appropriate lot numbers has been duly recorded in the proper office of the county in which the land is situated and a copy filed in the office of the project manager. This does not refer to lots subdivided into such form and area as to indicate a use thereof for town site rather than for agricultural or horticultural purposes.

WATER USERS' ASSOCIATIONS.

1. **Delinquent water users.**—At the proper time the association levies a call and assessment upon the shares of stock, proceeds against delinquents as provided by the terms of the stock subscription and the rules and regulations in force, enforcing collection by sale of the lands to which the stock is appurtenant, or so much thereof as may be necessary, and turning the amount due over to the duly authorized fiscal agent. The assessments to defray the current expenses of the association are levied and payment enforced in a similar manner.

2. **Sale of excess lands.**—The United States is not to be a party to excess-holding contracts between water users' associations and the owners of lands lying within the irrigable area of a project. Its only interest in the agreements or in the benefits derived therefrom is in the subdivision of large holdings into tracts not exceeding the prescribed area to bring them within the provisions of the reclamation act, in the mutual agreement to be secured thereby between water users throughout the irrigable area upon the use and distribution of the water and in the subordination of whatever rights they may have theretofore acquired to the provisions and conditions of the reclamation act. Agreements drawn upon such lines providing a method of sale for excess lands conforming to the local law governing judicial sales will be satisfactory to the department. (Aug. 30, 1904, 33 L. D., 202.)

3. **Excess lands conveyed to members of owner's family.**—Where individuals own land in excess of the prescribed area the excess may be conveyed to duly qualified members of the owner's family, provided the transfer is bona fide and the requirements of the reclamation act as to residence are complied with. (May 21, 1904, 32 L. D., 647.)

4. **Release of trust deed contract.**—By the terms of the excess land trust deed contract, the power thereby conferred is ipso facto terminated as to the lands or parts thereof (a) as have been conveyed to a qualified person who has filed a water-right application for the lands duly accepted and filed for record, or (b) as have been eliminated from the project. The issuance of a release or reconveyance of such lands is a matter between the association and the applicant therefor. The association in executing such release or conveyance

should satisfy itself beyond doubt that the conditions of the trust deed contract have been fulfilled and should require a showing by the applicant (a) that the applicant as to the area to be released is the owner in fee or has such an interest as may become a fee by the time final payment for water right is due, and (b) that the applicant has made water-right application for the lands sought to be released; that his application has been accepted by the Government and filed for record in the county records, or that the lands have been eliminated from the project. The showing made to the association should be sent to the project manager who will, upon the statement by the association as to the title, approve the execution of the release by the association if the records of his office show (a) the filing and acceptance and recording of a water-right application for the land to be released, or that (b) the lands have been eliminated from the project and released from stock subscription. The form of this approval should be substantially as follows:

By authority of the Secretary of the Interior the execution of a release of the above-described lands from the trust deed contract is hereby approved this day of, 19...

.....
Project Manager.

Authority to approve execution of releases as above is given all project managers pursuant to departmental letter of September 16, 1912.

5. Certificate of membership in association.—On projects where the water users' association has made the usual contract with the Secretary of the Interior, no water-right application is accepted in the absence of special instructions unless the certificate thereon has been executed by the secretary of the association as follows:

I hereby certify that the applicant for this water-right has duly subscribed (or is the successor in interest of one who has subscribed) for the stock of this association for the lands described herein, and that all assessments levied against said stock by said association have been fully paid up to date.

6. Release of stock subscription.—Where from any cause the subscription to the stock of a water users' association exceeds the irrigable area of the land to which the stock subscribed for is appurtenant or the lands have been eliminated from the project, application can be made to the association for the release of the excess area or the eliminated lands from the stock subscription. When the release by the association is executed it should be sent through the chief of construction to the Washington office, accompanied by report of the project office on the facts, with recommendation by the chief of construction. If, in the opinion of the director, a proper case is made out, the appropriate one of the following indorsements will be

made upon the release by the director, pursuant to authority given in departmental letters of March 11 and September 16, 1912:

By authority of the Secretary of the Interior assent is hereby given to the release of the above-described land from the stock subscription to the
Water Users' Association, dated, 191..

.....,
Director.

Or—

By authority of the Secretary of the Interior assent is hereby given to the above reduction of the stock subscription to the Water Users' Association for the lands above described. Dated, 19..

.....,
Director.

7. Assessments, right of, sustained.—The Supreme Court of Oregon, May 21, 1910, in the case of the Umatilla Water Users' Association v. Irvin et al. (108 Pac., 1016), rendered decision in a controversy between two boards of directors, both assuming to act as the legal board, the question turning on the legality of votes of the owners of shares of stock upon which assessments duly levied had not been paid. While the scheme of water users' association was not in issue the court passed on the propriety of the association levying assessments against the lands of stockholders prior to the time when the Government assessment matured, and the assessment spread on the records under provisions of the by-laws was held to be valid in the absence of an affirmative showing to the contrary.

8. Rules and regulations, enforcement of.—An injunction may be had by the United States against stockholders in a water users' association who refuse to comply with reasonable rules and regulations of the Secretary of the Interior as to the taking of water when such stockholders are required by the terms of their stock subscription contract with the association to comply therewith. (U. S. v. Bunting et al., U. S. District Ct. Dist. Oregon, 1913, 206 Fed., 340.)

WITHDRAWAL OF LANDS.

1. **Recommendations.**—Under section 3 of the reclamation act the Secretary of the Interior is authorized, first, to withdraw from public entry the lands required for any irrigation works, referred to as the first form of withdrawal; and, second, to withdraw from entry except under the homestead laws any public lands believed to be susceptible of irrigation from said works, referred to as the second form of withdrawal. Withdrawals for the purposes of examination and survey of a possible reclamation project should be recommended as soon as the engineer is satisfied that a particular locality presents such advantages for construction of irrigation works as to be worthy of investigation. Withdrawals of lands for purposes both of constructing irrigation works and for irrigation may be made prior to such examination and survey. (32 L. D., 6.)

2. **Date withdrawal becomes effective.**—A withdrawal becomes effective to reserve the land from entry on the date when the Secretary approves the recommendation therefor. Upon the cancellation of an existing entry, any reclamation withdrawal of record becomes effective as to the lands covered thereby without further order. (32 L. D., 520.)

3. **Mineral lands.**—Lands valuable for mineral deposits, although embraced within the limits of withdrawal under the second form, are not affected by such withdrawal with respect to the privilege of exploring for minerals therein, but the restoration of such lands to entry will not be made unless it should be developed by prospecting that there is a mineral field of commercial value, after which determination can be made regarding the disposition of the land. However, lands withdrawn under the first form rest under a different principle and are not subject to any lien or claim other than a vested right existing prior to such withdrawal. (35 L. D., 216.)

4. **Information.**—(a) *Furnished by register and receiver.*—By General Land Office letter of March 7, 1905, under the instructions of the Secretary of the Interior, the registers and receivers of the several land districts in which the reclamation projects were located were directed to furnish to all parties making inquiries with a view to actual settlement full information relative to public lands included in the projects and subject to disposal under the reclamation act; and to keep the officers of the Reclamation Service fully informed by correspondence of land-office conditions appurtenant to such lands.

(b) *Furnished by project managers.*—The project managers of the Reclamation Service shall keep the registers and receivers of the districts in which the projects are located fully informed respecting the condition and progress of the work of construction, and shall inform inquirers that full information respecting the public-land laws affecting tracts to be disposed of under the reclamation act may be obtained from the register and receiver of such districts.

5. *Publicity and land descriptions.*—For instructions in regard to avoidance of publicity when preliminary surveys are in progress, see Surveys, paragraph 23. For instructions in regard to descriptions of lands, see Surveys, paragraph 24.

6. *Unsurveyed land.*—Where the public land surveys have not been extended over the lands in question but are somewhere in the vicinity, the lines of these surveys should be projected, making liberal allowance for any possible variance in the final land-office survey. The description should be by metes and bounds and approximate future subdivisions, thus:

A tract described as follows: Beginning at a point $5\frac{1}{2}$ miles west of the NW. cor. sec. 8, T. — N., R. — W., — M., thence north $2\frac{1}{2}$ miles, thence west $2\frac{1}{2}$ miles, thence south 1 mile, thence east $\frac{1}{2}$ mile, thence south $1\frac{1}{2}$ miles, thence east 2 miles, thence south $1\frac{1}{2}$ miles, thence east $\frac{1}{2}$ mile, to place of beginning, being an area that will probably be, when surveyed, ... sec., ... sec. T. N., R. W., ... M.

When the public-land surveys are at a considerable distance, the descriptions should be made with the view to their being plotted on the State maps issued by the General Land Office.

7. *School sections.*—The fact that any tract is included in one of the so-called school sections should not prevent a recommendation for its withdrawal because the status of such lands depends upon a variety of conditions and the decision regarding the status is left to the General Land Office.

FIRST-FORM WITHDRAWALS.

8. *Status of first-form withdrawals.*—The first form of withdrawal authorized by section 3 of the reclamation act for irrigation works has the force of a legislative withdrawal and is effective to withdraw from other disposition than that contemplated by the said form of withdrawal all the lands within the designated limits to which a right has not vested. (32 L. D., 387.) Any use or occupation of such lands, except under lease with the Government, constitutes a trespass. The discretion of the Secretary in making first-form withdrawals of lands can not be questioned, and no application to enter can be allowed on the ground that the land is not needed. (38 L. D., 349.)

9. *Notice to settlers on withdrawn lands.*—(a) Whenever knowledge is acquired by any engineer or employee of the Reclamation Service

that any person has settled upon lands withdrawn under the first form, or upon lands withdrawn under the second form, before they have been declared subject to entry, and after such withdrawal, written notice shall be served upon the settler to the effect that the land is not subject to settlement, and that no preference right can be acquired thereby in the event of the future opening of the land to entry. (b) Where a settler is preparing to make improvements or expenditures upon withdrawn land needed or likely to be needed for reclamation work, or where settlement or occupation interferes or is likely to interfere with the operations of the service, the notice served shall contain information to the effect that the occupation is illegal and that unless the entryman promptly vacates the land, or shows cause as to why he should not do so, proper steps will be taken in the courts to secure his removal. The notices provided for in (a) and (b) should be limited to statements in substantially the language indicated. (c) If after service of notice to vacate, the entryman does not, within a reasonable time comply with the notice, the engineer shall at once report all facts to the Washington office to form basis of appropriate legal action. (d) Copies of notices served by engineers or employees in pursuance of this order will be at once furnished to the local land office and to the Washington office of the Reclamation Service. (Secretary, Oct. 3, 1912.)

10. Scope of withdrawal.—First form withdrawals should embrace all lands required not only for the construction of the main irrigation works, but also for minor structures, such as diversion weirs, sluiceways, operation and maintenance headquarters, inspector's and patrolman's quarters, etc., except when they are located within the right of way for canals reserved by law and are properly a part of the operation and maintenance works. Withdrawals under the first form should also be made to provide pasture for Government animals used in carrying on the operations under the act. (Secretary, Mar. 21, 1910, Lower Yellowstone project.) In some cases, legal questions may be involved and the district counsel should be consulted. The recommendation for withdrawal should be made with full statement of facts so that the director may determine the propriety of recommending the withdrawal.

SECOND-FORM WITHDRAWALS.

11. Status of lands.—Under section 3 of the reclamation act, lands withdrawn under the second form were open to entry only under the provisions, limitations, charges, terms, and conditions of the homestead act. In pursuance, however, of the provisions of the act of June 25, 1910 (36 Stat., 835), as amended by act of February 18, 1911 (36 Stat., 917) and section 10, act of August 13, 1914 (38 Stat., 686),

homestead entry is not allowed on lands withdrawn under the second form until farm-unit plats therefor have been filed and the public notice or announcement that water is available therefor is issued by the Secretary, except in case of relinquishment of a homestead entry made prior to June 25, 1910.

The provisions of these acts, however, are applicable only to new entries and do not relate to or prohibit the amendment of existing homestead entries by the inclusion therein of additional lands under second form withdrawal, but not included in final farm unit plats or covered by public notice. (Acting Secretary, Sept. 12, 1913).

12. Farm-unit plats, effect of filing.—In accordance with departmental order of July 21, 1908, the filing in the office of the Commissioner of the General Land Office and in the local land offices of farm-unit plats (other than preliminary) approved by the Secretary of the Interior shall be regarded as equivalent to an order withdrawing such lands under the second form under said act, and as an order changing to the second form any withdrawal of the first form then effective as to any such tracts. In case of the exclusion from a farm unit of any portion thereof by cancellation, recommendation for withdrawal under the first form should be made simultaneously with the farm-unit amendment, if the land is required for first form purposes.

13. Procedure.—(a) All correspondence concerning withdrawals of lands in primary projects will be conducted directly between the Washington office and the office of the project manager, with copies to the chief of construction, the recommendation of the project manager being secured in all cases.

(b) All questions affecting the withdrawal of lands in secondary projects requiring report from the field will be submitted to the senior engineer in the district affected for his comment and recommendation and submission through the chief of construction, who will forward the same to the Washington office with such comments and suggestions as may be found expedient.

OPERATION AND MAINTENANCE (USE-BOOK).

The following has been prepared for use also as a separate manual or "use-book" regarding the operation and maintenance of completed works, delivery of water, and relations between the water users and operating force.

The object is the presentation of the general principles governing the operation and maintenance of irrigation systems, and the suggestion of uniform methods of putting these principles into effect, primarily for the use of irrigation systems built by the United States under the terms of the reclamation law, but also with a view to an application of the principles and practice to large irrigation systems built by private or corporate capital. It is recognized that there is need of agreement on these matters and of uniformity in methods and statement of results, so that intelligent comparisons can be made and broader knowledge obtained of conditions and controlling factors in the operation and maintenance of irrigation systems.

There is now a general recognition of the fact that the business of management of a large irrigation system with its reservoirs, main-line canals, and distributaries, aggregating hundreds of miles in length, is a distinct profession comparable to that of the management of railroad lines and requiring similar training and experience in the handling of large affairs. The success of the water user or farmer is largely dependent upon the most effective and economical handling of the water system, which gives value to his land and enables him to raise crops. In this respect the situation is comparable to that which exists where the prosperity of large communities is tied up with the proper handling of the transportation facilities. Although the aggregate expense to the farmer of obtaining water for his land is often a relatively small part of the cost of raising a crop, yet the value of this crop may be affected by many times that part through the manner and time in which the water is delivered to his fields.

In the past, there has been general neglect or failure to recognize the vital importance to the farmer of more systematic handling of water. His efforts have been concentrated mainly on saving a relatively small amount in the cost of delivery of water, often at the sacrifice of crop values. It is, therefore, of the highest importance in the agricultural development of the arid region to have a better appreciation of these conditions and to bring about such uniformity of methods as will permit comparison and study to secure the highest effectiveness in the management of the irrigation system joined with all practicable economies.

Other portions of the manual should be consulted regarding all subjects not solely related to operation and maintenance, particularly for terms of employment in the Reclamation Service, laws governing its operations, relations of the public lands to the Government reclamation projects, methods of entry, assignments, relinquishments, water-right applications, etc.

DEFINITIONS.

1. **Reclamation project.**—A reclamation project is a complete plan for the irrigation of one or more areas of land naturally related by proximity or common source of water supply. The term generally embraces a plan for the greatest feasible development of the available land and water supply of one locality or drainage basin, but is used also to refer to a scheme of partial or smaller development and is applied to the actual works built under either plan and to the lands irrigated.

2. **Unit.**—Where the complete plan is naturally divided into separate and distinct parts, each of these may be named separately as a project unit. The term is also applied to arbitrary divisions of a project or the works or lands involved for convenience in planning expenditures for different periods or of designating the land affected by the different public notices issued by the Secretary of the Interior from time to time.

3. **Irrigable land.**—Irrigable land is tillable land that can be watered by an irrigation project. (See par. 14, p. 174.)

4. **Agricultural land.**—Agricultural land is land capable of use for crop production. This land may or may not be irrigable.

5. **Public land.**—This term is used to denote land owned by the United States. This may be entered or subject to entry under the terms of the reclamation law.

6. **Private land.**—This term includes land not subject to reclamation law, including patented land, and land entered, but not subject to the reclamation law. Thus desert land entries may be classed as private land, also homestead entries made prior to withdrawal for Government reclamation.

7. **State land.**—State land is land the title to which rests in a State. Lands formerly owned by a State but sold under contract to individual parties will be considered private land, even though patent has not issued.

8. **Water supply.**—The water supply of an irrigation project is the total amount of water available for its use from all sources. The term covers the source, quantity, and variation in the flow available throughout the year. A quantity or volume of water is expressed in units of acre-feet and a rate of flow in second-feet.

9. **Acre-foot.**—An acre-foot is that unit of volume required to cover 1 acre 1 foot in depth. Owing to convenience of size and its

particular application to land areas, the acre-foot has been adopted as the unit of measure where volume alone is considered. It is equivalent to 43,560 cubic feet. It should be noted that the element of time does not enter into this unit.

10. **Second-foot.**—A second-foot is that unit of flow that will produce 1 cubic foot of volume in one second of time. Where the time element or rate of flow is involved, it is desired to adopt the second-foot as the unit of measure. A second-foot continuous flow will produce approximately 2 acre-feet (1.98) of volume each 24 hours.

11. **Miner's inch.**—This is a smaller unit of flow than the second-foot, being roughly defined as the flow through an orifice 1 square inch in cross section, but obviously such flow varies with the pressure or head of water on the opening and other conditions. The use of this term is therefore undesirable because of the difficulty of defining it and also because it varies considerably as defined by law in different States. In a few localities court decisions or agreements have been worded in miner's inches, but in each case where it is necessary to use miner's inches it is desirable to have the equivalent in second-feet stated so as to change to second-feet as soon as practicable.

Equivalents of miner's inches and cubic feet per second.

State.	One second- foot equiva- lent to—	Head on center of orifice.	State.	One second- foot equiva- lent to—	Head on center of orifice.
	<i>Miner's inches.</i>	<i>Inches.</i>		<i>Miner's inches.</i>	<i>Inches.</i>
Arizona.....	40	6	North Dakota.....	50	4
California.....	40	6	Oklahoma.....	50	4
Colorado.....	38.4	(¹)	Oregon.....	40	6
Idaho.....	50	4	South Dakota.....	50	4
Kansas.....	50	4	Texas.....	50	4
Montana.....	40	6	Utah.....	50	4
Nebraska.....	50	4	Washington.....	50	4
Nevada.....	50	4	Wyoming.....	50	4
New Mexico.....	50	4			

¹ In Colorado a miner's inch is defined by laws of 1868 as the flow through an inch orifice under a 5-inch pressure measured from the top of the orifice, and the prescribed height of the orifice is 6 inches except for flows under 12 miner's inches, when the orifice may be square. As a result the head on the center of the opening varies and the value of the miner's inch varies correspondingly from about 38 miner's inches to 43 miner's inches for 1 cubic foot per second. The commonly accepted equivalent is 38.4 miner's inches to 1 cubic foot per second.

12. **Duty of water.**—In irrigation the duty of water is the quantity required for crop production on a given area, usually during a year or irrigation season. This may be expressed in acre-feet per acre, in

acres per second-foot of continuous flow during the season, or in other units or combinations of these. It may be determined for a particular crop, as the number of acre-feet per acre required to produce that crop, or it may be stated, as in acre-feet per acre, for the irrigation of any tract, unit, or project area. The duty will be different for different crops and will vary with the climate, character of soil, method and skill in irrigating, as well as other factors.

The determination of the duty of water in any case involves a measurement of area and of water quantity. Since the transportation of irrigation water involves constant loss by evaporation and seepage, the computed duty will be affected by the point of measurement of the water, which should be stated in all cases where a figure is given for the duty. Thus we may have a duty of water in the reservoir or river, a "diversion duty," where the water is measured at the head of the canal system, or a duty "at the land" where measured as delivered at the farms. On the Government reclamation projects the duty at the farm varies usually from 1 to 3 acre-feet per acre. (p. 454, 14th Annual Report, U. S. Reclamation Service.)

13. Beneficial use of water.—Beneficial use of water is such use as will give a reasonable maximum amount of crop growth with a reasonably economic handling of the water. Since a water user with a vested water right has acquired such right under the public laws, he is entitled to protection of that right by the public; but the public, on the other hand, has the right to demand of him that he use every reasonable method to reduce the amount of water required to a minimum. This demand requires the water user to make proper preparation of the ground surface for irrigation; to use good judgment in selecting appropriate methods of applying the water to the ground; to prepare reasonably efficient dikes, ditches, and structures to get the water over the land in such a way as to reduce the underground losses to a minimum; to irrigate the ground with such a head and at such intervals as to require a minimum use of water for proper irrigation; to cultivate the irrigated ground when practicable to prevent undue losses from evaporation; in some cases possibly to limit the character of crops to be grown. It is evident that the reasonable degree of perfection of each of these requirements will vary with the locality and with different and changing conditions in each locality, so that the beneficial use of water is a variable.

14. Economical use of water.—Economical use of water is such use as results in the largest economic returns from the lands irrigated by a specified amount of water. Since the water supply available for irrigation in the Western States is adequate for only a relatively small percentage of the entire irrigable acreage, it becomes both necessary and desirable to impress irrigators with the fact that the

largest yields per acre-foot of water applied are obtained not from using large quantities but from using small quantities. In working for an economical use of water it should not be understood that established rights can be limited to less water than they would carry under the accepted rule of beneficial use; yet by constantly bearing in mind that the ideal ultimately necessary must be the highest reasonable crop return per unit of water applied, irrigators may gradually be induced in many instances to obtain for themselves the highest return. In the history of irrigation in this country there has been evident a gradual but very definite evolution in the ideas of what constitutes proper use. While the use of water for irrigation was at first relatively unimportant, its importance now overshadows all other uses save that of domestic supply. In the course of this evolution the doctrine of beneficial use has become established, but in future development this doctrine must in many cases merge into or be supplanted by that of economic use. The doctrine of beneficial use looks to individual interest; that of economic use to the general welfare of society as a whole. So far as possible, water charges, systems of distribution, and regulations should be so adjusted as to make the interest of the individual water user coincide with this public interest.

15. **Management.**—The management of an irrigation project involves the control and operation of the works, safeguarding these by constant attention and the necessary repairs, and general administration of the project interests, including engineering, agricultural, financial, and other details. This administration should be carried on effectively and economically in order to produce the greatest crop returns and obtain the best use of the water supply.

16. **Operation.**—Operation is the actual use of an irrigation system for the development and distribution of water, including works for drainage and flood protection to preserve the irrigated lands against excess water. Careful operation involves the regulation of many structures, such as head gates, checks, turnouts, etc., so as to control the quantity of flow at all points and all times according to design.

17. **Maintenance.**—Maintenance embraces the repairs and renewals necessary to preserve the irrigation and drainage system in its original efficiency. The most common items of maintenance are the cleaning of earthen canals of silt and weeds, mending "breaks" in the canal banks, and miscellaneous.

OPERATION AND MAINTENANCE REGULATIONS.

INTRODUCTORY STATEMENT.

18. Purpose.—It is the object of these regulations to bring together the broad principles governing the ownership and control of the irrigation works on the various projects of the Reclamation Service, the nature of the organization employed on these works after their completion, and the operation and maintenance of the works. These principles are intended to be applicable to all projects, and it will be necessary to provide for each project, in conformity with these general rules, the necessary detailed regulations for carrying on the work.

OWNERSHIP AND CONTROL OF WORKS.

19. Built by public funds.—The reclamation fund originates from the sale and disposal of public lands in certain States and is made available for the construction, operation, and maintenance of irrigation works by acts of Congress. The reclamation law provides that the expenditures shall be repaid to the fund by those for whose benefit the irrigation works are constructed. Thus, the reclamation fund is permanent, and may be used again and again for the construction of irrigation works.

20. Public ownership and control.—In the construction of irrigation works on any project with the reclamation fund, the public as a whole is in effect loaning money to the landowners on the project, or to those who will eventually settle on the project, with the expectation that the expenditures will be repaid by these landholders. In view of this fact the irrigation works on the various projects are the property of the public; that is, of the United States. Section 6 of the reclamation act provides that when payments have been made for the major portion of the irrigated lands the management and operation of the works shall pass to the landowners, to be maintained at their expense, under such form of organization and rules as may be acceptable to the Secretary of the Interior; but this is modified by section 5 of the Reclamation Extension Act of August 13, 1914 (36 Stat., 686), which permits the Secretary to turn over the projects to the water users' associations or irrigation districts at any time in his discretion. Regulations and form of contract for such purpose have been adopted and were printed in the Reclamation Record for April, 1916, page 162. Section 6 above referred to also provides that the title to and management and operation of the reservoirs, and the works necessary for their protection and operation, shall remain under the control of the United States until otherwise provided by Congress.

21. **Water users' interest in works.**—While the water users on a project are not the owners of the irrigation works and have no control over them until they have been turned over as provided by law, yet their interest in these works is great from the first, as they have purchased or are purchasing water rights the value of which as well as that of the lands irrigated depends upon the adequacy of the system. They have an interest in the construction of the works because they ultimately pay the cost of construction; they have an interest in the efficiency of the irrigation plan of the project, because on that efficiency depends their success in utilizing the irrigation works; they have an interest in the cost and method of management of the irrigation works after construction, because they must bear the cost of this management and prosper or suffer accordingly as this management is efficient or inefficient.

22. **Right of way.**—In the construction of the projects, rights of way have been acquired or reserved by the United States for the canals or other works. Rights of way over public lands entered subsequent to October 2, 1888, are reserved to the United States by the act of Congress approved August 30, 1890 (26 Stat., 391), while other rights of way have been granted to the United States by the acts of State legislatures or by grant of the water users themselves. Where rights of way were not obtainable under act of Congress or State legislation, the United States has acquired through purchase, condemnation, or donation from private parties such additional rights of way as were necessary for the construction, operation, and maintenance of the irrigation systems. Over lands where the rights of way have been secured by legislation, the widths thereof, unless otherwise fixed by statute, are those required for the proper operation and maintenance of the canals, laterals, and other irrigation works. Where rights of way have been donated or purchased, the widths are determined by contracts of donation or purchase.

23. **Fences.**—Fences will not be built by the United States on the reclamation projects, except when necessary for the maintenance of canals or protection of works. Fences across the rights of way of the main canals, and of such other canals or laterals as may be designated by the service, shall not be permitted if in the opinion of the project manager they offer obstruction to the flow of water or to the passage of employees and teams of the service engaged in the operation and maintenance of the irrigation works. Applications from landowners to locate and maintain fences across canals and laterals will be given due consideration, and revocable licenses on the forms provided therefor for such erection and maintenance will be granted where found to be compatible with the interests of the United States.

24. Bridges.—In the construction of the projects many of the canals, laterals, and waste-water ditches crossing the county roads have been bridged by the United States in pursuance of the policy of rendering the project lands available for early settlement and development. Where bridges across Government canals are needed for private use by the water users on their own farms, these bridges shall be constructed at their expense in accordance with plans approved by the proper officers of the project and shall be erected and maintained under licenses on proper forms issued to the parties desiring such structures.

25. Control of sublaterals.—Until transferred to the water users the control of all sublaterals constructed or acquired in connection with projects under the reclamation law is retained by the Secretary of the Interior to such extent as may be necessary or reasonable to assure to the water users served therefrom the full use of the water to which they are entitled. (See 37 L. D., 468.)

26. Private use of public property and rights of way.—Some water users have a desire to build private dams, for one purpose or another, in the canals and laterals crossing their lands, and attempt in various ways to make private use of the property belonging to the United States. Such practices are not consistent with the proper ownership and control of the irrigation works for the general good of the project and will not be tolerated. In these cases, as in the cases of private bridges and fences, no such structures shall be placed upon the rights of way or other property of the United States, except upon revocable licenses on the proper form from the officer in charge of the project.

27. Secretary of the Interior as trustee.—Since the nature of the reclamation fund and provisions of the reclamation act make irrigation works on the projects the property of the United States, there is necessarily a trustee in whose care these works are placed. This trustee is primarily the Secretary of the Interior, who is directly responsible to the people of the United States for the proper care and use of the irrigation works. By delegation, this responsibility rests ultimately on the project employees. The employees are, therefore, in effect, the representatives of the trustee of the United States, in whose care is placed the proper management of the irrigation works. This involves a heavy responsibility, and the employees can not exercise too great care in properly carrying out the trust placed in them.

OPERATION AND MAINTENANCE ORGANIZATION AND ITS DUTIES.

28. Secretary of the Interior.—The authority given by the reclamation law is vested in the Secretary of the Interior, who, through the agency of the Reclamation Service, builds and operates the Gov-

ernment projects. Thus, the Secretary of the Interior is the head of the organization engaged in the construction of reclamation projects, as well as the operation and maintenance of completed works. He is responsible to Congress for the operations and expenditures under the reclamation law, and his approval of all actions involving the broad policies of the management of the irrigation works must be obtained in advance.

29. Reclamation Service and Commission.—The organization through which the Secretary acts is the Reclamation Service. The executive officer of the service is the director and chief engineer, who controls all employees engaged in investigating, constructing, operating, and maintaining projects. The director and chief engineer is represented in the field by the chief of construction, who has charge of the principal field office and executes the approved plans and policies under the direction of the director and chief engineer. Associated with the director and chief engineer are the chief counsel, in charge of the legal affairs of the service, and the comptroller, who handles fiscal matters. These three officers constitute the Reclamation Commission, which considers questions of administrative policy and recommends action thereon to the Secretary of the Interior or acts in pursuance of authority previously given by the Secretary.

30. Project manager.—On the project, the manager is the responsible man in charge. It is his duty to direct the work in all its phases, including construction work where this proceeds in conjunction with the operation and maintenance of completed portions of the system. For operation and maintenance the project manager necessarily has an office force and a field force. The office force has for its duties the planning of water deliveries for the project as a whole, the compilation of final records of deliveries, the collection and disbursement of money, the handling of office correspondence, assistance in inspection of field work, and the preparation of the necessary plans for maintenance. The field force has for its duties the proper distribution of the water and the maintenance of the irrigation works. The size and the detailed duties of these office and field forces will necessarily vary with the extent and conditions of each project.

31. Assistant project manager.—On a project of considerable size the project manager has a principal assistant to aid him in adjusting complaints and in keeping in touch with field conditions. It is the work of this assistant to extend the detailed supervision of the project manager. It should be his aim to check the measurements and water deliveries made by the regular force in case of complaints and to guard the interests both of the service and the water users.

32. Water master.—Except on the smaller projects, the canal system is divided into districts, in each of which a water master is

directly responsible for the delivery of water to the users and the execution of maintenance work. Each water master is provided with equipment for travel. He has a clerk to keep his records, take orders for water delivery, and give notice to proper employees in case of breaks or other emergencies, and has also a corps of canal riders to deliver water and execute maintenance work, and such gate tenders as may be necessary for the proper management of the district.

33. Canal riders.—Each canal rider patrols definitely assigned portions of canals or laterals, measuring the water to the users or groups of users, and reporting its delivery by mail or telephone to the superintendent, performing at the same time the necessary inspection and other work incident to maintaining the work on his ride. The canal rider is expected to cover the ride laid out for him either once or twice a day, according to the fluctuating heads in the canals or laterals on his ride and the necessity for careful adjustment of the water deliveries.

34. Qualifications of canal riders.—The canal rider holds an important position in the delivery of water on an irrigation project and should have certain qualifications in order to make him competent to fill this position effectively. He should have a good general education and some agricultural training or experience. He should be strong, healthy, energetic, resourceful, and tactful, able to make accurate computations, and to keep neat, accurate records. No narrow limitations should be placed on age, as good canal riders may be found among men of from 20 to 50 years of age. The younger canal rider will generally be more flexible and more easily trained, and the older one more tactful and judicious. The canal rider should be willing to perform hard manual labor in case of breaks and employment on maintenance work, and in order that he may be better qualified for doing maintenance work he should have had some experience in miscellaneous construction work.

35. Permanent employment of canal riders.—The best results will be obtained where canal riders are permanently employed, and they should be selected with this idea in mind. It is desirable, also, so far as possible, to select canal riders who have qualifications that will permit their advancement to higher positions.

36. Landowners as canal riders.—In selecting employees, other things being equal, preference should be given the project water users and their families. Excellent canal riders may be found among farmers or farmers' boys on a project, and the fact that they own land on the project does not disqualify them for the position. The ownership of land and the acquaintance with the problems of the farmers should tend to increase rather than to decrease their useful-

ness as canal riders. A canal rider should not, however, be assigned to a beat where he will deliver water to his own farm.

37. **Other employment for canal riders undesirable.**—The canal rider should be required to give his entire time to the matter of canal riding and not allowed to devote a portion of his time to farming or other private work. Loitering should not be tolerated, and the canal rider should be impressed with the fact that he is employed for the purpose of delivering water impartially to water users along his ride, of making records of these deliveries, and of keeping the canal patrolled by him in good operating condition.

38. **Instruction and training of canal riders.**—In order that canal riders may do efficient work, written instructions should be issued to them defining their work. A copy of the booklet entitled, "Measurement of Irrigation Water," should be furnished each canal rider. Canal riders should be trained to be watchful of the canal and structures on their beats, of the telephone system, and of all other features of the project within their territories connected with its successful operation. Frequent meetings of the project manager and water masters with the canal riders are advisable for the purpose of discussing methods and various problems encountered from time to time in the delivery of water and the maintenance of canals.

39. **Quarters and subsistence for canal riders.**—It is the policy of the Reclamation Service to require each canal rider to furnish his own quarters and subsistence. In case he does not live in the vicinity of his work and can not find suitable quarters near by, the United States will provide quarters, for which the canal riders will be required to pay the usual rental. This policy is applicable to all projects of the service.

40. **Conveyances for canal riders.**—As a general rule, canal riders should be required to make their rides on horseback, or in suitable carts; the use of motorcycles or bicycles for this purpose should generally be avoided, as these tend to cause the rider to concentrate his attention more on the condition of the roadway than on the condition of the canal. Each canal rider should be required to furnish a sufficient number of horses to enable him readily to accomplish his rides. He should be required, also, to furnish the necessary quarters and feed for his horses and in case carts are used to furnish these.

41. **Gate tenders.**—Gate tenders are provided where necessary at the heads of main canals and other points. Their duties are to regulate properly the water flowing into the canals, to make the necessary records in connection with their work, and to report their operations to the water master.

42. **Hydrographers.**—Where measuring devices are not installed on all the canals, so that records of the flow of water in the canals and the quantities of water delivered to the water users can not be de-

terminated without current meter measurements, each project organization includes one or more hydrographers, whose duties consist of measuring the flow of water in the canals and the deliveries to the water users, making the necessary records thereof and reports to the water master or project office.

43. **Selection of employees.**—The selection of all employees in operation and maintenance work is governed by the rules of the United States Civil Service Commission. A full discussion of the rules of the commission, as related to the work of the Reclamation Service, will be found in special printed pamphlets on this subject, available at the Washington office, and on pages 25 to 55 of this manual.

RELATION OF PROJECT MANAGER TO AGRICULTURAL SIDE OF THE WORK.

44. **Aid to farmers.**—The project manager is an employee of the United States, and his position requires him to conduct operations in an efficient and economical manner for the benefit of the Nation. A broad view of this responsibility requires that the management be conducted in a manner calculated to improve agricultural conditions on the project. Just as a railroad company promotes its own interests as well as those of the communities along its lines by various agencies, such as demonstration farms and agricultural shows, the projects of the Reclamation Service should be so operated as to advance the interests of the community and the individual farmer. Any reduction in the number of failures is a gain to all.

45. **Necessity of indirect methods of cooperation.**—Government operation will require that work of this nature be accomplished for the most part by indirect methods, but the project manager should have a deep and intelligent interest in the agricultural conditions on the project, and their development should be guided and directed to a considerable extent by the efforts of the manager and his responsible assistants.

46. **Cooperation through direct personal contact.**—The project manager and his responsible assistants should be able and should take occasion to discuss with individual water users their particular problems and to suggest solutions. Usually this may be done most effectively by referring the individual to some progressive farmer in his vicinity who has dealt successfully with the problem under discussion.

47. **Cooperation with leading men in the community.**—There are in every community experienced men with whom it is desirable to discuss matters of general interest, such as diversification of crops, introduction of new crops, waste-water disposal, drainage, and roads, and who, when such matters are brought to their attention, will usually advo-

cate progressive ideas among their neighbors. The project manager may through this means suggest developments in the most effective manner. Farmers' institutes, marketing associations, crop-improvement clubs, and like organizations have been initiated in this manner in different communities and have been of material value in the general development of the project.

48. *Cooperation through project employees.*—Project employees who are landowners, by taking part in agricultural organizations, may accomplish good results without making themselves meddlesome where they have no direct interest.

49. *Cordial relations.*—It is believed to be essential to the best development of any project that the most cordial relations possible be maintained between the water users and the officials of the Reclamation Service. For this purpose the first essential is of course the usual fair treatment of all water users by the local force and frank discussion with them of the true relation in which the service stands to them and of the regulations and limitations under which the system must be operated.

50. *Cooperation with farmers' organizations.*—The farmers' organizations that have been found useful in different parts of the country are the grange, cooperative creameries, cooperative canneries, growers' associations for standardizing and marketing products, crop-improvement associations, stock companies for the purchase of dairy and other stock, good-roads associations, and the like. The relation of the project manager to these organizations should be one of interest and encouragement. He should assist such organizations by the most practicable means available, usually through personal talks with the leading farmers in the community.

51. *Cooperation with agricultural colleges and Government departments.*—The project manager should keep in touch with representatives of the other departments of the Government service, and of agricultural colleges, in order to cooperate whenever possible and to avoid duplication of work. Great advantage should result from preliminary discussion with the men in responsible charge with a view to planning the field work of investigations by the Department of Agriculture, or agricultural colleges, so that it may be along the lines most useful to the agricultural development of each particular project.

RELATIONS BETWEEN EMPLOYEES AND WATER USERS IN WATER DELIVERY.

52. *Canal riders.*—Canal riders often find themselves confronted with difficult situations regarding water delivery and the demands of water users. Uniform courtesy is necessary at all times. Strict impartiality must mark the dealings with all water users. Full

cooperation both with water users and with fellow canal riders is expected of every rider.

53. **Water masters.**—The nature of the complaints that come to the superintendent are somewhat different from those that come to the canal rider. The water master must answer complaints that canal riders do not have authority to adjust, and must investigate and study the fundamental human elements or other sources of all complaints. The water master may find that some complaints have only fancied foundations, but he should give them respectful, careful, and judicious consideration, correcting the cause of complaint where such correction is legitimate and explaining why such correction can not be made in case the complaint is not legitimate.

54. **Assistant project manager.**—The relation of the assistant manager to the other field employees on operation and maintenance, and to the water users themselves, is unusually trying. He should by all means try to avoid a partisan attitude. He should note carefully any and all complaints that the water users may have to make; should always bear himself courteously toward all of them, but should make no promises, outside of the provisions of the general regulations for the project, as to what will be done other than to advise them that the matter will be given prompt and careful attention, and decided upon its merits.

55. **Project manager.**—The project manager should so plan his work as to enable him to spend a considerable portion of his time in the field, visiting the various parts of the project and looking after the mutual interests of the United States and the water users. In cases of serious complaint he should study the situation carefully on the ground before arriving at a decision. When in his office he should be available for consultation. The matter of being readily accessible to the water users so that they can talk over their business affairs freely and directly with the project manager will go a long way toward settling complaints. The project manager should not take an arbitrary attitude on any question brought up by a water user as a complaint; he should hear the case, give it careful consideration, and decide it upon its merits. No higher compliment can be paid to a project manager than to say that he is always ready to hear the evidence and decide the case on its merits. The project manager should also cooperate to the fullest extent possible with the water users as a whole through their regularly constituted organizations, such as a water users' association, or irrigation district. Such organizations should be encouraged to take up and settle the problems of the water users, and matters of policy affecting the project may be referred to the organizations with advantage. It is the duty

of the project managers to attend the regular meetings of such organizations if desired, and explain the policy of the department on the various questions relating to the canal system. In this manner pleasant relations between the water users and the employees can be greatly enhanced. At such meetings a grievance committee, if any is appointed by the organization, can straighten out its difficulties among its own members and with the organization, and can present such of the difficulties to the project manager for his consideration as seem wise to the organization. As the success of the irrigation project rests on the success of the water users the project manager should have a sympathetic view and understanding of the trials and difficulties of the farmers. He should not, however, be swayed by these sympathies from strict adherence to the requirements of the law and regulations relative to the project, which he should carry out with quiet determination, even though he faces possible unpopularity.

56. Estimates of cost.—The water users should be informed concerning the expenditures made in managing the project and the water users' organization furnished a copy of the estimates of the expenditures for operation and maintenance. Whenever a small committee is designated for the purpose any proposed items of expenditure should be discussed. It should be borne in mind that it is the intention of these regulations to permit and urge the water users on the projects to obtain full information regarding the expenditures.

57. Criticisms.—Criticisms of the service or of individuals, or insinuations of improper conduct, should be followed up wherever possible, and where these appear to be serious in character, the person making the statement should be requested to reduce it to writing and attest its accuracy before a notary. All complaints by the water users that can not be adjusted in a satisfactory manner by the field men should be brought to the project manager. In case a satisfactory adjustment of the complaint can not be made by the project manager, appeal may be made to higher authority.

OPERATION.

58. Legal basis of operation.—There are two principal methods of procedure by which water is furnished under the projects of the Reclamation Service. One is informal in character and applies to a project before construction is fully completed; the other is under section 4 of the reclamation act, is formal in character, and applies to the opening of a project after construction has progressed sufficiently to permit announcing the water-right charge. Water may also be delivered under the terms of the act of February 21, 1911 (36 Stat., 925), and under special contracts involving the carriage of water.

59. Operation on rental basis.—On those projects where the construction work has not been completed and the water supply is not made fully available, and where at the same time the lands have been settled upon, water may, in the discretion of the Secretary of the Interior, be temporarily delivered to the settlers for an annual rental or carrying charge.

60. Applications for rentals.—Before water is furnished on this temporary basis, an application on an approved form is made out by the water user, with provision for payment for the amount of water applied for or received.

61. Operation under public notice of water-right charges.—When a project is sufficiently completed to make it possible to determine the water-right charges, or when any particular unit of a project has been so completed, a public notice is issued by the Secretary of the Interior, under section 4 of the reclamation act, designating the lands for which water is available, fixing the amounts and times of payment of the charges for construction and for operation and maintenance, and defining the portions of the irrigation system to be operated and maintained by the United States and by the water users.

62. Operation by United States.—Where water is delivered on a rental basis on any project prior to formal opening, the operation is usually by the United States. After formal opening of the project by public notice the United States operates and maintains the reservoirs, diversion works, main canals, and lateral systems to such an extent as may be announced. This operation and maintenance ordinarily continues until such time as the operation and management of the works shall pass to the owners of the lands irrigated, as contemplated by section 6 of the reclamation act or by section 5 of the reclamation extension act.

63. Operation by water users.—Section 6 of the reclamation act provides that the management and operation of the irrigation works shall pass to the water users when payments have been made for the major portion of the lands to be irrigated. Prior to this transfer of the management of the works, portions thereof, as found desirable, may be turned over to the water users to operate and maintain at their own expense under such form of organization and subject to such restrictions as are approved by the Secretary of the Interior under the provisions of section 5 of the reclamation extension act. Where on any project the United States has not built laterals or sublaterals, but these have been provided by the water users themselves, water will be delivered by the United States to such laterals or sublaterals as a unit, to be operated and maintained by the water users thereunder. In such cases the water users affected should form a suitable organization to take charge of such community ditches and the water delivered

thereto under regulations that fit the local conditions and the requirements of the project.

64. Applications for water rights.—After the issuance of the public notice formally opening the project for irrigation, water-right applications, on the proper forms, must be filed, and payments must be made as provided in the public notice before water is furnished. A full discussion of water-right applications, certificates, payments, etc., will be found elsewhere in the manual.

65. Operations involved in water delivery.—In operating the works of a project the duties of the operating force consist of storing, conveying, and delivering water to water users in accordance with the terms of their contracts, keeping records to determine the amounts of water used, and collecting the necessary construction and operation and maintenance charges. The service aims to have the water delivery made strictly in accordance with the terms of the water-right applications or contracts, in such manner as to insure the best agricultural results and the highest reasonable economy in use.

66. Reservoirs.—When it becomes necessary to draw on the reservoir supply, the project manager should make a careful study of the water requirements under the various water-right contracts, the adequacy of the supply, and the best distribution to meet crop needs, and should conform the reservoir discharges to these needs and requirements. The reservoir tender should keep records on suitable blanks of the inflow, outflow, evaporation, and rainfall.

67. Canal intakes.—A careful control of the canal intake is essential. The gate tender should be thoroughly reliable, alert, always on duty, and ready to act in emergencies. Floating debris should be kept out of the canals as far as practicable and the gate tender should be provided with the necessary equipment for accomplishing this end. In addition it is the duty of the gate tender to regulate the canal to a definite height of water under instructions received from time to time from the water master or project manager and to keep a record thereof on suitable forms. The canal intake gates should always be provided with locks so that unauthorized persons can not interfere with the flow of water. The intake should invariably be provided with telephone connections with the project manager's office.

68. Rotation delivery.—The rotation method of water delivery should be used unless local peculiarities make this impracticable. The method can be varied greatly as the rotation may be made between two water users, between two or more groups of water users under a single lateral, between two or more different laterals, or between definite divisions of the whole canal system of the project. Local conditions will determine which of these methods is most applicable to each project. It is probable, however, that the divisions

of the canal systems or the size of the groups of the water users between which rotation is practiced will be varied during the irrigation season to secure the most economical method of water distribution. The project manager should give full consideration to the subject of rotation and work out carefully the extent to which this method of delivery can be practiced.

69. Periods of rotation.—In the rotation method of water delivery a water user is furnished within a fixed time all the water to which he is entitled within a certain greater time. This is accomplished by increasing the head or rate of flow delivered sufficiently to compensate for the time of nondelivery. The time of actual delivery is called the time "on;" the time of nondelivery is called the time "off," and the two together form the rotation period or cycle. Probably the most common practice is to deliver water to the user during half the time; that is, the time on and the time off are equal. In such cases the periods of rotation are usually arranged from four days on and four days off to eight days on and eight days off. Where the land is prepared carefully for irrigation and the water user is experienced in handling a relatively large flow of irrigation water, a large head will be delivered for a short time and the time off will be correspondingly long. Heads as large as 5, 10, and 15 second-feet, or more, are sometimes used. In these cases an irrigator entitled to the equivalent of 1 second-foot of water flowing continuously may be delivered 5, 10, or 15 second-feet for one-fifth, one-tenth, or one-fifteenth of the time of each rotation period.

70. Continuous flow delivery.—The method of delivering irrigation water by continuous flow is wasteful of water, increases the labor of the irrigator, militates against a high duty of water, tends to create or increase the need for drainage, and often reduces crop values. For these reasons the continuous flow method of water delivery should not be used where it can be avoided.

71. Demand delivery.—When not all the irrigable area under any canal system is being irrigated, so that the canals are not being operated at full capacity, it is possible, within certain restrictions, to deliver water to each water user as he requests it. This method permits the user to get his water when he is best prepared to use it. After all the irrigable area under the canal system has been brought into cultivation, this method can not be followed during the season of maximum demand for water, but may possibly be used during those portions of the irrigation season when the demands for water are light.

72. Irrigation head.—Where lands are not properly prepared for irrigation it is necessary for the water user to use a small irrigation head. In such event he will require continuous flow or only a small increase of head over his continuous flow right. Where, however,

the lands are thoroughly prepared for irrigation, large heads can and should be used. As the use of large irrigation heads is conducive to economical use of water, it is the duty of project managers to encourage their use up to the maximum capacity of the laterals. Many of the lateral systems, however, have not been constructed for the delivery of large heads of water to individual irrigators and care should be exercised not to encourage water users to demand irrigation heads in excess of the capacities of the laterals.

73. Delivery to users.—In delivering water to the various water users under the canals, and in determining the needs for water in advance, great care should be exercised by the project manager. In order to accomplish this, the water users should be notified that water will be delivered or should be required to request their water on the proper form sufficiently in advance so that the project manager can determine accurately the amount of water to turn into the main canal system from day to day and so that the water masters and canal riders may have similar data for the subcanals and laterals. Blank forms for these purposes will be furnished. In case of shortage due to error in determining the amount of water required in the canal system at any time, some equitable system of pro rata distribution should be applied. This may be done by prorating over the whole area, or by the rotation method of prorating to small areas.

74. Separate delivery and measurement desirable.—In the case of subdivision of farm units or of private holdings made in accordance with the regulations and duly accepted, water should, so far as practicable and consistent with existing agreements, be delivered and measured separately to each individual user. This principle is not to be construed as preventing rotation of water between users on a lateral, in which case the water for the users on the lateral may be measured at the same measuring box and the flow used by the water users for prorated periods.

75. Extra charge for small holding not desirable.—As a rule no extra charge for delivery of water on account of the small size of the holding should be made against the holder of a portion of a farm unit or a private land holding, subdivided for agricultural or horticultural purposes. In other words, the size of the holding should not affect the operation and maintenance charge throughout the project. This provision is not to be applied to town sites nor to tracts of land subdivided into lots of such form or area as to indicate the use thereof for town-site rather than for agricultural and horticultural purposes, in which case water will be delivered by contract under the town-site act. A minimum unit may be fixed below which water will not be delivered in cases of extreme subdivision.

76. Cost of structures and ditches for farm units after project completion.—If the owner of a farm unit subdivides it after the comple-

tion of the construction work of the project or the unit thereof in which the farm is located, the approval by the project manager of the subdivision for agricultural or horticultural purposes should be made contingent upon a clearly written understanding being had between the purchaser and seller as to which of them will pay the cost of additional necessary structures and ditches and also as to the rights and conditions of use of existing drainage canals and irrigation ditches and the rights of way for the construction, operation, and maintenance of additional necessary irrigation canals and drainage ditches. An understanding should also be had that the canals, laterals, ditches, tap boxes, and weirs shall be provided either at the expense of the seller or of the purchaser, and that deposits will be required in advance by the project manager to cover the estimated additional costs to provide for such additional appliances for both portions of the farm unit.

77. Cost of structures and ditches for private farms after project completion.—While it will be difficult to ascertain the status of such agreements in the transfer of private lands, yet the rules stated for public land holdings as to rights of way and costs of construction should be applied to private land holdings, and private landholders on the projects should be so advised. Neither water-rental nor water-right applications should be accepted until these provisions are complied with.

78. Distribution plan.—Delivery is usually made to water users under schedules announced from time to time by the project manager. On those projects where local regulations require applications from the water users, stating in advance the quantity of water desired for a run, request blanks should be furnished for the purpose. Following the request, notice of time of delivery will be issued to the water user sufficiently in advance to allow for preparation for each run of water to be delivered to him. Two or more water users on the same lateral may arrange for interchange of time, provided such arrangements do not interfere with the regular schedule to other users.

79. Capacity of farm laterals.—The head laterals or structures for the distribution of water on the individual farm should have a sufficient capacity to carry an economical head of water. The quantity needed will vary according to crops, texture of soil, and the method of irrigation. In no case will the Reclamation Service deliver water to a farm lateral with a capacity less than that fixed by local regulations on the project.

80. Responsibility of water users.—Water users are responsible for water after it has been delivered for their land, either at the land or to sublaterals or other portions of the irrigation system operated by them, and for damage either to ditches owned by the United States

or to adjoining lands due to their carelessness in handling water. Any damage so caused to property of the United States must be repaired at the expense of the water users causing it. The running of waste water into Government laterals will not be allowed, except by special permit. No obstruction to the flow of water in canals or drain ditches or to the free passage of the operating force along canal rights of way is permitted.

81. Control structures.—On portions of the system operated by the Reclamation Service all turnouts and other structures for the control and delivery of water will be operated by service employees only, in the absence of specific authority to the contrary, or except where, as in the case of emergency, a different method is necessary for the protection of Government property.

82. Complaints.—Canal riders will have direct control of the delivery of water, and in their dealings with water users are required to be courteous and to extend any accommodations which are not incompatible with the efficiency of the service. Any failure to make proper delivery of water or any complaint bearing on the efficiency of the service should be reported at once.

83. Duties of the operating force.—The most important duty of the operating force is the delivery of water to irrigators, and this can not be done without unceasing vigilance in guarding against breaks and in the care of structures; neither can it be done satisfactorily or impartially without a knowledge of the quantity of water handled. The flow of water should be carefully gaged and a sufficient head steadily maintained in the laterals to furnish the required discharge at the farm turnouts in use. Canal riders will be furnished with tables of discharges for use in water measurements, and at the beginning of each irrigation season will be required to familiarize themselves with the delivery schedule to be used for their beats. Canal riders and gate tenders will report daily to the water masters of their divisions, on blanks furnished for the purpose, the gage heights of the canals and laterals under their charge, the time of turning on and off water in laterals, and all the water deliveries made, with the quantity furnished each water user. Canals and laterals should be kept free from weeds and other obstructions and minor repairs to structures and ditch banks should be kept up. All breaks and washouts that can not be repaired by the canal rider should be reported to headquarters at once, by telephone if possible, detailing the location, nature, and extent of the trouble, with a statement of the equipment and material needed for effecting repairs. Canal riders should be able to make minor repairs to the telephone line should occasion require.

84. Duty of water.—When a project is formally opened the duty of water is stated in the public notice. During the early stages of the

operation of the project, when a comparatively small amount of land is under cultivation, there will normally be an abundance of water for the water users. There will be a tendency during this period to overirrigate and thus aggravate drainage needs, delay proper preparation of the land for irrigation, and accustom the water users to uneconomical methods of water use. In view of these facts it will be desirable, as nearly as possible, to adhere from the beginning of operation to the duty of water stated for the project in the public notice. The attention of water users may be called to the fact that when, as is usually the case, the area capable of irrigation exceeds that for which there is sufficient water, the adoption of a high duty of water brings about lower operation and maintenance charges by increasing the acreage that bears the expense.

85. Water waste.—It is the duty and purpose of the Reclamation Service to furnish water for legitimate use only, and every precaution should be taken to prevent undue waste of water. The intentional wasting of water must not be permitted. The water-right contracts provide for limiting the amount of water delivered to each water user to that beneficially used. In case, therefore, a water user is using water wastefully, the quantity delivered to him should be reduced without delay to the amount that he can beneficially apply to his land.

86. Canal measurements.—A rating station should be installed and maintained at the head of the main canal of a project and at the head of each large branch. Where the main canals and subcanals carry a considerable quantity of water, these rating stations should be based on current meter methods of determining discharge and should be kept well rated to determine whether the canal system is carrying the proper amount of water. Only in this way can the amount of waste be reduced to a minimum. The canal riders in making their daily measurements should keep careful records of conditions at these rating stations.

87. Measurement to water users.—Measuring boxes should be carefully and accurately installed at the heads of laterals and sublaterals and at the points of last measurement by the United States in delivering water to the users. In case the water for any user is measured at the boundary of the land to be irrigated, the exact amount called for in the water-right application or contract should be measured to him. If, however, measuring boxes are not installed at the border of the land to be irrigated, the increase deemed reasonable by the project manager to cover the losses between the point of measurement and the land to be irrigated should be made. The canal rider should keep on the proper forms a daily record of all of the water deliveries on his beat. See the pamphlet entitled "Measure-

ment of Irrigation Water," published by the Service, for discussion of the subject of water measurements, together with discharge tables.

88. **Weirs.**—In measuring the water at the heads of laterals, sub-laterals, and farm ditches, the use of Cippoletti weirs is preferred if the local conditions are such as to make the use of weirs practicable. Weirs should be substantially installed with level crests and in such manner as to provide bottom contractions and side contractions for contracted types. The length and width of the weir pool should be made sufficient to permit the stilling of the water between the turnout and weir crest, and the pool should be kept free from silt and weeds. Such work should be carefully looked after by the canal rider in making his daily rounds. In connection with each weir there should be installed a gage reading to hundredths of a foot located sufficiently far upstream from or to one side of the weir crest to be out of the effect of the drawdown at the weir crest. This gage should be substantially installed and conveniently arranged for checking the elevation of the zero point with the elevation of the weir crest.

89. **Weirs with low heads.**—Where the elevation of the water surface in a canal is low in comparison with the adjacent lands to be irrigated, and where there is little fall of the ground surface, extra precaution should be taken to prevent submergence of the weir. Fall can be conserved by making the length of the weir crest comparatively great and by making the water depth of the canal immediately below the weir comparatively shallow. Attention is also called to the fact that the formulas for the Cippoletti and rectangular weirs are not accurate when the water depth over the crest of the weir becomes greater than about one-third the length of the weir. In such cases the discharge given by the formula is too small and the error increases with the depth.

90. **Submerged orifices.**—Where there is not sufficient head for measurement of water over a free weir, the use of a submerged orifice is preferred. The orifice opening should be placed well down so as to insure constant submergence and the opening should be made long rather than high. The orifice box should be provided with an overflow weir to prevent undue rise of water in the canal in event the orifice becomes stopped with weeds or other débris.

91. **Irrigation season.**—The irrigation season will be fixed by public notice or local regulations. Water will not be delivered at any time other than during this season, except on direct authority of the project manager.

92. **Domestic and stock water in nonirrigation season.**—On account of the resulting injury to land by seepage, damage to canals and structures by ice, and increased cost of canal operation, and in view of the necessity for sanitary reasons of pure water for domestic and stock purposes, water for such purposes only will not be run

in the canals during the nonirrigation season when this can be avoided. In the early stages of development of a project, where the cost of wells is high, it may be necessary to run winter domestic and stock water in the canals for a short time until the water users can sink the necessary wells for these uses. Even in such cases, the water should be run only at intervals, and only long enough to fill cisterns and ponds; care should be exercised in making these runs of water to select periods when the weather is most favorable.

93. **Sanitation.**—It is necessary for the health of the water users and the satisfactory operation of the canals that the canal water be kept free from pollution of every kind. The throwing of any deleterious or other matter into the canals is forbidden. The project manager is expected to enforce this rule, and any infraction should be reported immediately by canal riders or other employees.

FORMS FOR WATER RECORDS.

94. **Standard forms and units.**—In keeping records of water deliveries and related data, it is desirable so far as practicable to adhere to the use of standard units of measurement and standard forms of record. Standard units have been quite generally adopted and the more important are defined elsewhere in this book.

The three following general principles in the collection and recording of data upon the delivery of water should be observed: (a) The original field records of the canal rider, including arithmetical computations, if made, should be filed in the project office, where they will be available for examination and checking; (b) a journal or daily record should be kept, showing in detail the quantities of water delivered to each water user; (c) a ledger account of water deliveries with each water user should be kept so that the quantity used to date can be quickly ascertained at any time. Standard forms for these and related purposes have been adopted and may be obtained on requisition. They are described in the following paragraphs. A standard form suitable for the various local conditions of different projects will in some cases necessarily include spaces and columns not applicable to all. It is a simple matter in such cases on those projects not needing such spaces to leave them unused. It is realized that not all of the forms will be needed or useful on all projects, as where there are alternative standard forms for the same purpose under different local conditions, or where, because of the size of the project or other local conditions, no form is needed for some of the purposes or fewer records may be sufficient. Aside from such considerations, the standard forms should be used on Reclamation Service projects.

95. **Notice of eligibility to water service, form 7-333.**—This form is intended for use in supplying the water master and the canal rider with the names of water users entitled to immediate delivery of

water. It will be issued by the project manager to the water master as the water users make the necessary payments and otherwise qualify for water service. The canal rider may be furnished with a duplicate of the notice to the water master, or the water master may fill out one of these forms appropriately for each canal rider in his district.

96. **Water request, form 7-307.**—This form is to be used by the water users in requesting water for their land where it is not desired to state the crops or land description. The card has blank address lines on one side so that it can be addressed and mailed, if desired, and can be used also where the request is left at the turnout box, handed to the canal rider, or filled out as an office memorandum of requests made by telephone. It is advisable in every case that the request for water be made of record on this card in order that the responsibility for any failure to deliver may be determined. When verbal requests for water are made, the canal rider or clerk should request the water user to put the order in writing over his signature on this form. In cases where requests for water are received over the telephone, the record on this form should be made, filling the card out in full, including the name of the water user, indicating that the name has been supplied by the one making the record.

97. **Water request, form 7-307a.**—This form is designed for individual requests for water on those projects where it is necessary or desirable to have stated the crops to be irrigated or the land description. This form is an alternative to form 7-307 and is to be used in the same manner as that form.

98. **Water request, form 7-307b.**—This form is designed for use on those projects where requests are made by community canal riders or water masters who have charge of the water after it enters a community ditch. In handling this card the same requirement should be made of the community water master or canal rider as is made of the water user in the use of forms 7-307 and 7-307a.

99. **Water notice, Form 7-335.**—This form is designed for use in notifying water users when water will be available for the irrigation of their lands under the rotation system. It is to be issued by the canal superintendent or the canal rider and either mailed to the water user, handed to him by the canal rider, or left in his turnout box.

100. **Turnout record, Form 7-338.**—This form is for a record of the water deliveries made to a water user's turnout. It is a card to be kept at the turnout in a small box so that it may be consulted by the water user at any time. This is especially useful when the flow delivered is necessarily less than that requested by the water user and where the canal rider has not had other opportunity to notify the water user of the change.

101. Daily water report, Form 7-308.—This form is to be used by the canal rider, headgate tender, or other person in direct charge of the delivery or measurement of water. It may be used either as the original record or filled out from the original record merely to serve as a report. When used by the canal rider as the original record it should be filled out daily as the work progresses and forwarded to the main office. When used as a report in connection with Form 7-311, it should be filled out from the latter form and forwarded to the main office. The time and manner of forwarding the cards and the question of whether the computation shall be made by the canal riders or in the main office, are to be determined by the project manager to suit the conditions on each project. These forms are bound in books of 25 or 50 cards, perforated for easy removal.

102. Water-delivery record, Form 7-311.—This form, made up in permanent books of pocket size, is to be carried by the canal rider whenever on duty for entering a record of water transactions and is retained temporarily by the rider as a field substitute for the daily water report, Form 7-308. At the close of each month, or as often as the project manager may direct, these books are to be forwarded to the main office, to be filed away permanently as an original record. In case Form 7-311 is used by the canal rider, he should use Form 7-308 to make a daily report of the water transactions to the main office.

103. Water record, Form 7-309.—This form is used as the office record posted from the reports on Form 7-308. Form 7-309 is printed on cards to be filed by the names of the water users and should be kept posted to date so as to show at any time the exact status of water deliveries to any user. At the close of each month the amount of water delivered for the month should be totaled and entered in the space provided.

104. Canal record, Form 7-310.—This form is to be used in connection with each of the principal canals of the project. The purpose of this record is to show the amount of loss by seepage and evaporation in the canal and serve as a check on the accuracy of the measurements that are made at the various structures.

105. Monthly water storage, Form 7-312.—This form is for a tabulation by months of the performance of each reservoir, showing the quantities of water entering and leaving the reservoir through various means, the seepage and evaporation losses, and the stage and storage at the close of the month.

106. Monthly water statement, Form 7-313.—This form is for use in making a monthly statement to each water user of his water account and should be used in all cases where water is delivered to the farm by the Reclamation Service.

107. **Report of breaks, Form 7-334.**—This form is to be used by the canal rider to notify the water master or by the water master to notify the project manager of a break on a canal or lateral. A report should be made on this form promptly on the discovery of any break of importance giving, if possible, the time of turning the water off and back on and an estimate of the cost of repairing the break.

MAINTENANCE.

108. **Importance.**—An irrigation system is a machine by the proper operation of which water is diverted from its natural course, under control, and delivered to the lands to be irrigated. The efficiency of this machine depends primarily upon its design and secondly on its maintenance. The general design of the machine has been fixed in the construction of the project and it is the duty of the maintenance force to provide the proper maintenance of the machine. In case of this, as other machines, its efficiency can be greatly impaired by poor and careless operation and by negligence and ignorance in failing to provide appropriate and timely repairs. A high standard of construction characterizes the irrigation works of the Reclamation Service projects and a high standard of maintenance should likewise be insisted upon.

109. **True economy.**—The primary principle of maintenance should be to make all repairs as soon after the damage is done as is consistent with economy and the necessity for delivering water. The selection of the economical time in maintenance work does not carry with it the necessity of taking a large risk in delaying the repairs until such time as they can be done most cheaply. Other things being equal, all damages should be repaired at a time when the work can be done at minimum cost, but the risk should not be taken of permitting a damaged structure or canal to continue in operation without repair when a break due to such damage might result in large loss of crops. In projects so far south that the irrigation season extends practically throughout the entire year, arrangements should be made to do the necessary repair work at times when it interferes as little as possible with the needs of the water users for water.

110. **Reservoirs.**—The reservoirs of a project are liable to suffer damage mainly when they are filled to their maximum heights. At the season when water is low in the reservoir careful inspection should be made of the outlet works and dams to ascertain what repairs are necessary to put them in excellent condition for the succeeding year's work. A repair of an incipient damage generally saves a heavy damage later because an opportunity for repairs of the storage works will probably not exist for another year. The efficiency of the project as well as the safety of life and property are dependent upon careful and intelligent maintenance of storage dams.

111. **Canal system.**—It is impossible either to operate the canals of an irrigation system or to allow the system to lie idle without some damage resulting. The damages occurring during the idle season are often as serious as those occurring during operation. Practically all important repair work to the canal system can be done more cheaply when the system is dry than during the irrigation season and advantage should be taken of this fact when it can be done without unwise risk.

112. **Damages to canals during idle season.**—On those projects where there is a rainy season during the idle period of the canal system or where snows accumulate during the winter months there is considerable difficulty from heavy floods in the drainage channels under the canals and from water flowing over the canal banks into the canals, washing away the banks and filling the canals with sediment. The inflow at such times may, on some of the smaller canals, be sufficient to tax their capacity unless the maintenance employees take every precaution to meet such emergencies. Adequate wasteways should be provided and kept open so as to be available for use at the proper time. A few days spent in careful patrol at such times may save heavy repair costs later.

113. **Damages to canals during operating season.**—During the operating season, unless constant vigilance is exercised, an excessive head of water may be run through one or more of the canals of the project. Wasteways for caring for surplus water should be provided and the operating force should be constantly on the alert to dispose of water with as little damage as possible. In this connection great care should be taken not to crowd the canals beyond their safe capacity. Such practice often results in disastrous breaks and heavy maintenance charges.

114. **Erosion and silting.**—It is almost impossible in constructing canals and laterals to select grades and cross sections that will prevent both erosion and deposition of silt in the canals. For this reason heavy items of maintenance may be involved in protecting the canal banks and bed against erosion at certain times, particularly on the outward side of curves, and in cleaning out the deposits of eroded material. Excessive velocities should be controlled by the installation of necessary checks; and cutting banks should be protected by some form of riprap that will prevent erosion.

115. **Cleaning canals of silt.**—Ordinarily the most appropriate time for cleaning canals of silt is in the fall, immediately after the close of the irrigation season. Delay of such cleaning until spring often results in difficulty because of the saturated condition of the canals from frost and spring rains. Occasion may now and then arise for cleaning silt from canals and laterals during the irrigation season, but this work should be avoided as far as practicable. In the south-

ern portions of the arid regions where canals are operated throughout the year, it is necessary to turn the water out of the canals or laterals for the purpose of cleaning them of silt. In these cases the cleaning forces should be well organized and on hand before the water is turned out, so that the work can be accomplished as rapidly as possible in order not to interfere more than absolutely necessary with the proper delivery of water.

116. **Plant accumulation in canals.**—Willows, moss, and various aquatic plants accumulate in the canals and obstruct the flow of water. Such vegetation should be cut and removed when it can be done at least expense and without interfering with the delivery of water. The use of heavy chains or cables extending from bank to bank and dragged upstream by one or more horses on either bank has been found very effective with some kinds of growth. Spring tooth or spike-tooth harrows drawn by teams in the water when not too deep, or from the bank in deeper water, are even more effective as they destroy the root system. There is on the market a weed saw which has been found useful when all other devices failed, though its use is rather expensive. Where practicable to do so, the most effective method has been found to be that of turning all water out of the canals for two or three days just as the moss is getting well started and allowing the sun to kill the growth. In some cases it has been found that sufficient silt in the canals to make the water muddy destroys or prevents growth of moss.

117. **Cleaning canals of weeds.**—Where the irrigation season does not extend throughout the entire year, the weeds on the canal banks and right of way should be mowed and burned after the close of the irrigation season. Before putting the canals into service the next season such weeds as have blown into the canals and about the structures should be burned. Care should be exercised to avoid burning any of the wooden structures in this work. On all projects during the irrigation season all weeds on the right of way and canal banks that by their nature are a menace to agriculture should be cut from time to time to prevent their going to seed; and the weeds on the water slope of the banks and the moss in the canal must be cut when necessary to prevent their reducing the safe carrying capacity of the canals below that required. Sheep and goats have been utilized to advantage on some projects in keeping canal banks cleaned of weeds and grass.

118. **Repair of structures.**—Structures on the irrigation system should be repaired as far as practicable during the nonirrigation season, so that continuous employment may be given to a portion of the operating force and so that interference with the delivery of water during the irrigation season may be avoided. Risks should not be taken, however, by attempting to carry a structure of doubtful

efficiency through to the end of the season when the delay may result in the destruction of the structure and serious interruption of water service.

119. **Burrowing animals.**—Burrowing animals may cause great damage to canals. Among the most injurious are the pocket-gopher, badger, and muskrat. It is usually possible to reduce greatly the damage done by these animals by poisoning, trapping, and shooting them. The trampling of canal banks by sheep and goats has proved effective in keeping down these pests. The expert advice of the Biological Survey of the United States Department of Agriculture should be called upon through the Washington office when unusual trouble is experienced with such animals. All embankments should be carefully watched by canal riders at all times and special care should be taken at the time of raising the water in the canals after a period of nonuse.

120. **Maintenance camps.**—In the interest of economy the establishment of separate camps for carrying on maintenance work should be reduced to a minimum. Ordinarily maintenance forces can be quartered with the farmers in the vicinity of the work or movable sleeping quarters may be provided by the management and board obtained with the farmers. For large jobs it will be necessary to establish camps, in which case care should be exercised to make them sanitary and wholesome places for the employees.

121. **Maintenance forces.**—It is essential to good organization to combine the maintenance force with the operating force, even during the operation season; that is, maintenance work should be done under the direction of the water masters. With this method of organization, if maintenance trouble arises in the district of the water master, he has a force immediately at his command to make the necessary repairs and speedily resume the water service for which he is responsible. When the irrigation season is closed the water master can arrange to use some of his canal riders on maintenance work and thereby keep them employed during the nonirrigation season, taking advantage of their experience in canal work and saving the organization of additional inexperienced forces.

122. **Inspection.**—The canal riders while patrolling their beats should make constant and careful inspection to determine the needs of repairs and should report to the water master any immediate requirements that the riders are unable to attend to alone. At the close of the irrigation season each canal rider should make a complete report to the water master of what repairs he considers needed on his beat. The water master and project manager should then make a complete inspection to determine what work should be done and to organize the necessary forces as soon as the irrigation season closes. Where

the irrigation season lasts throughout the year, such inspection trip should be made by the project manager over the project and by each water master over his district as often as the conditions indicate to be necessary, at least twice a year.

123. Order for repair work, Form 7-320.—This form, intended for use with carbon sheets, is bound in small books, perforated for easy removal. The form serves as an office memorandum for the project manager or division superintendent, and is especially designed for use in connection with minor repairs that are performed during the operating season.

SEEPAGE AND DRAINAGE.

124. Danger of seepage and its causes.—One of the important things to which attention must be given is the protection of irrigated lands from becoming seeped and waterlogged and their productivity destroyed as a result thereof. In the application of water to land, there is more or less loss due to a larger quantity being applied to the surface than can be retained by the soil and given up to the plants. The amount of water which sinks below the zone of plant growth and is wasted in this manner depends upon the perfection of the processes of irrigation and the care and skill used by the irrigator. Until the processes have been sufficiently perfected to distribute the exact quantity of water required for the growing crop and until a high degree of proficiency in the handling of these processes is reached, some underground wastes are to be expected. Where, as is ordinarily the case, earthen canals are used for carrying or distributing water to lands, there is more or less loss from these canals. This loss, together with the underground waste from irrigation, tends to fill the soil and raise the water plane or the height of free water. When the water plane is raised above certain limits, the irrigability of the land is destroyed, since plants can not thrive in a soil the interstices of which are filled with water.

125. Investigations necessary for protection.—To protect lands from becoming seeped and waterlogged, it is essential that the position of the ground waters be known in order to prevent their rise to or near the surface, rendering the lands unfit for cultivation. To do this, occasional observations should be made at various points on the elevations of ground water to determine whether or not it is rising. When a rise in the water plane is noted and there is danger of it coming too near the surface, action should be taken to prevent it.

126. Preventive and corrective measures.—The means of lowering and controlling the ground water may be the prevention of losses from canals, the reduction of the amount of water applied to the soil in irrigation, or the construction of drains for carrying out excess waters. Damage from canal losses may be prevented either by lining or water-

proofing the canals or by constructing the necessary drains to intercept the seepage and carry it away before it is allowed to percolate into the irrigated lands.

127. **Choice of plan.**—The plan to be adopted for preventing or curing seepage will depend upon many factors, such as character of soil and subsoil, amount of water used in irrigation, and the topography of the irrigated areas. No general rules defining what should be done can be laid down, but each case of seepage or threatened seepage should receive the necessary studies and investigations in order to determine what remedial measures, either in the form of drainage or otherwise, should be adopted.

128. **Drainage engineering.**—The drainage engineer assists the chief of construction on drainage matters and acts in an advisory capacity to the project managers on drainage problems. When there is apparent need of drainage or assistance is desired in working out details of drainage investigations or construction, the project manager should call the matter to the attention of the chief of construction, who will authorize such studies, investigations, and assistance as may seem necessary.

REPORTS.

INTRODUCTORY STATEMENT.

129. General requirement.—Careful records must be kept and periodical reports promptly made of all operation and maintenance work. These reports should be brief, but at the same time complete in general discussions, tabular data, and diagrams. The object of the operation and maintenance reports should be to record, by means of concise statements, existing conditions and the nature of the work accomplished during the period covered by the reports. These reports are of two classes—those made by local employees to the project manager and those made by the project manager to the Reclamation Commission and the chief of construction.

130. General discussions.—There is always much information of a historical and descriptive nature that can be presented clearly and satisfactorily only in text. These data are extremely valuable not only as current information but as records of past operations and conditions. Accuracy, completeness, and brevity are important in this feature of all reports.

131. Tabular data.—The preparation of useful tables is a matter that needs unusual care. Tables should be used freely in the preparation of reports and special forms have been devised to secure uniformity and completeness in this feature of the reports.

132. Diagrams.—The use of diagrams to show conditions existing upon the various projects has in many cases distinct advantages over tables. Some of the subjects that may well be reduced to graphic form are listed below; others will suggest themselves to the project manager as the work develops: (a) Progress of settlement upon the project compared with the growth of the irrigated area; (b) duty of water; (c) use of water by months; (d) size of farms compared with per cent of irrigated land on each farm; (e) comparative costs of operation and maintenance; (f) loss by seepage compared with seeped area and progress of drainage work; (g) organization charts; (h) storage in reservoirs; (i) weather conditions; (j) value of crops per acre from year to year.

133. Photographs.—A few photographs may be useful in illustrating important features of reports, showing construction and repair work, typical farm improvements, the condition of crops, devastation by storms, and the like. Any such subjects chosen for pictures

should be sufficiently typical or common to warrant their use in representing general conditions or pointing out important factors in the success of the farmers. It is not desirable materially to increase the cost of the reports, and the number of photographs should be small in any case. On new projects beginning with the settlement it may be possible in some cases to inaugurate a series of bird's-eye views of the irrigable lands taken annually or semiannually at about the same time of each year and from the same points, thus showing something of the development of the project, the settlement, extension of the irrigated land, and improvements. These would be akin to the progress photographs of large structures taken periodically during construction.

WEEKLY REPORTS.

134. **Nature and object.**—Weekly reports should be limited to such memorandum reports as find their destination in the project manager's office. Their purpose should be to keep the project manager constantly in touch with conditions in the field and furnish him with the information needed in compiling his monthly report. On projects where water masters and maintenance or repair foremen report through another officer to the project manager, weekly reports should be sent through that officer, but the original should be filed in the office of the project manager.

135. **Form.**—The form of such reports should be that suggested by the particular needs of the project organization. The requirement of long formal reports from men in positions requiring mainly physical labor should be avoided as likely to detract from their efficiency in other lines. A good form is that of a condensed diary prepared by the water masters and maintenance foremen, with a brief narrative of the work for the week and the happenings of note. The importance of a diary kept by each member of the field force who is in responsible charge of work is emphasized.

MONTHLY REPORTS TO PROJECT MANAGER.

136. **Clerical matters.**—The chief clerk should make a report to the project manager of the work done by the clerical force, including such items as may be of interest to him or may be required by him in making his monthly report.

137. **Engineering matters.**—The engineer in charge of engineering work should make a report to the project manager on such work, including a statement of the number of men employed, surveys made, construction work performed, materials used, and the cost of work accomplished.

138. **Water deliveries.**—The water masters should make a report to the project manager giving the amount of water received and

delivered, reasons why the amount delivered during the period covered by the report was above or below normal, all canal troubles, repair work, and crop conditions. The general conditions over the territory operated by the water masters should be reported with special reference to fluctuating heads of water in the canals. All breaks or other troubles requiring the turning out of the water, together with the cause, extent, and amount of damage resulting, the cost of the repairs, and the time during which water was out of the canals, should be reported. The repair work performed by or under the direction of the water masters should be given in detail covering the location and nature of the work performed and its cost. Crop conditions should be reported in such detail as will enable the project manager to cover this subject as required in his monthly report. The water masters should also include in their reports such other data as will enable the project manager to report intelligently on all of the topics to be covered by his report that depend on a knowledge of field conditions.

PROJECT MANAGER'S MONTHLY REPORT.

139. **When made.**—The monthly operation and maintenance report of the project manager to the chief of construction, with carbon copy to the director and chief engineer, shall be made promptly at the close of each month and should be prepared on the basis of the following outline:

140. **Crops.**—During the crop-growing season give a general statement of the conditions of the five or six principal growing crops and note any serious damage from rain, floods, hail, frost, hot winds, and heavy winds; the appearance in destructive quantities of plant diseases, such as blast, blight, rot, rust, scab, smut, wilt, and others; the prevalence in destructive quantities of insect pests, such as San Jose scales, red spiders, weevils, chinch bugs, cutworms, grasshoppers, Hessian flies, potato bugs, and others; and the existence of destructive quantities of ground squirrels, mice, pocket gophers, rabbits, and birds. During the noncrop-growing season give a statement of the local prices of the five or six leading products of the project with a rough estimate of the percentage of each of these crops still on hand and the principal method of disposal of crops during the month, whether fed locally or sold and shipped out.

141. **Live stock.**—Give any special conditions in the horse, cattle, hog, or sheep industry, including shipments of stock, purchases of blooded stock, the forming of associations for the purchase of such stock, and the prices of breeding stock or butcher stock. Note also any epidemics of cholera, anthrax, forage poisoning (cerebrospinal meningitis), lip and leg ulceration (necrobacillosis), or other seriously detrimental diseases of animals.

142. Weather.—State whether there has been cooler or hotter weather than the normal for the month; whether the rainfall or snowfall has been light or heavy; note the appearance of severe hail or wind storms on the project and the general conditions of the prospective water supply for the irrigation season as evidenced by conditions in the watershed from which the supply is obtained for the project.

143. Water used.—State briefly for the month the amount of water stored in the reservoirs for the project, the amount of water taken into the canal system for irrigation, the number of water users being supplied with water under water-right applications, and, in case of water rentals, the number of water users being supplied under water-service applications, and the number and amount of applications received for the month and to date for the season.

144. Maintenance.—Make a brief report of the maintenance work carried on during the month.

145. Drainage and seepage.—Give a brief statement of the general seepage conditions on the project and, where drainage work is being done, of the accomplishments along this line for the month.

146. Complaints and general feeling of water users.—Give briefly the nature and cause of the principal complaints and the general feeling of the water users on the project.

147. Improvements.—Call attention to any large improvements that have been made on the project, such as the establishment of creameries, canneries, fruit-packing businesses, and central schools.

148. Settlement.—Give the increase in the number of filings on land and other matters of interest in regard to general settlement activity.

149. Personnel.—Give concisely the names of the principal men employed or refer to a list previously given.

150. Visitors.—Report the visits of the principal officials of the service to the project and of other visitors of special interest.

ANNUAL OPERATION AND MAINTENANCE REPORTS.

151. Nature.—The annual operation and maintenance report is a history of the year's operations and a summary of the results accomplished. It should, therefore, contain a complete discussion of the system operated, organization, methods of performing the work, costs, results obtained, crop conditions, general condition of the farmers, including causes of their success or failure, needs of the project, and estimates of cost for the following year. It is not desirable, however, to duplicate any general information included in the annual construction reports or published annual reports of the Reclamation Service. Comparisons should be made of the results obtained with results of previous years to show the progress made. Information as to duty of water and as to methods of water delivery, prolonging the life of structures, preventing slides, exterminating burrowing

animals, and protecting canal banks may be of considerable value to other projects, and special attention should be given to new methods tried and their results. Two copies of the operation and maintenance report for Indian projects should be sent to the Washington office, one copy being for the use of the Office of Indian Affairs. Such reports should show a division of irrigated acres, crop value, and larger related figures to show results accomplished by Indian farmers, by lessees, and by white owners.

152. Importance.—The annual operation report is an important one. Far more than construction reports it will show the measure of success being obtained in the accomplishment of the ultimate object of the reclamation law. While the construction reports are of interest as showing the economy and progress of expenditure, the operation and maintenance reports will show the real success of the investment and the prospective rate of returning the cost to the reclamation fund. These reports should permit the comparison of results of the various projects and the needs of each. The reports may be made of value also to the water users. They should give the causes and extent of failures, an account of hailstorms, floods, seepage, climatic conditions, and market conditions, and, if the needs of the project are properly discussed, will bring to the attention of the water users their shortcomings and point out how they may improve their general conditions.

153. Limitation.—The preparation of this report requires the collection of a large amount of detailed information, and it is a serious matter to determine just how far to go. It is certain, however, that the results should be brief, concise, accurate, and should be taken in such a manner as will give comparisons year by year for each project and between the different projects. Only such detail should be obtained as is actually used in and is of value to the report. Material already included in the annual construction reports should be referred to where germane, but need not be copied for the operation report.

154. Obtaining crop data.—The accuracy and usefulness of the annual operation and maintenance report depend in large measure upon the accuracy of the crop statistics. To collect these, Form 7-332, water-user census card, should be used. This form may be mailed to the water users where this method of gathering the data is feasible, or carried into the field by the project employee taking the census. The form is printed on perforated cards, bound in books of a convenient size that may be carried in the pocket. The water user should be informed of the purpose for which the information is desired, and may be furnished a copy of his crop report whenever he desires one. Where feasible, the kind and acreage of crops should be obtained by the canal riders during the early part of the irrigation season in connection with their routine duties, as this information is of considera-

ble value in determining the needs of the water users for water. The crop yields, stock inventory, and other information required by Form 7-332 may be obtained at the close or near the close of the irrigation season either by the canal riders or the canal superintendents. In collecting data for the annual operation and maintenance reports it is desired to avoid, as far as practicable, expensive methods on one hand and gross inaccuracies on the other. The aim should be to get reasonably reliable information at reasonable cost.

155. **Valuation of crops.**—In filling out the crop census card the value per unit of measure for any crop should be given as that actually received by the farmer, as nearly as it is possible to arrive at that value. If the farmer sells part of his alfalfa in the stack on the farm, delivers another part loose to a neighbor, and a third part baled at some shipping point on the project, the average price received by him for the alfalfa at the various points of disposal should be used in determining the price of alfalfa. The alfalfa used by him for feed on his farm should be included at the average price of alfalfa loose in the stack. The value of all other crops should be determined in a similar manner. The project manager should determine so far as possible the value of all crops directly from the estimates given by the farmers themselves, or from his knowledge of current prices on the project.

156. **Forms.**—As far as practicable, information of a similar character from the various projects should be tabulated on standard forms provided for the purpose. These forms are sufficiently general to be applicable to all projects and their use is required in the annual operation and maintenance report.

157. **Weather conditions, Form 7-330.**—This form is intended for reporting the weather conditions on each project during the year for which the annual operation and maintenance report is made. It includes information relative to temperature, precipitation, evaporation, wind movement, and general weather conditions. Inasmuch as all elements of the weather have a bearing on crop growth and some have a bearing on the cost of operation and maintenance of the irrigation system, they are of interest and value in the report.

158. **Status of water users, Form 7-314.**—This form is provided for bringing together general data relating to the water users on the project. It shows the number of owners and tenants, their experience in farming, results in crop production, and general information relative to the population of farms and towns, and the public schools of the project.

159. **Status of lands and water rights, Form 7-315.**—This form provides general information relative to the condition of public and private lands, their irrigation, the payment of water-right charges, and, as far as practicable, transfers of ownership.

160. Crop yield report, Form 7-316.—This form brings together the yields and values of the various crops grown on each project. It is compiled from the information gathered on Form 7-332. This is one of the most important forms of those required for the annual operation and maintenance report and should be carefully and accurately prepared. As soon as available, advance copies of the crop reports on Form 7-316 should be sent to the Washington office in duplicate, one copy being for the use of the Department of Agriculture.

161. Stock yield and equipment report, Form 7-317.—This form calls for an inventory at the close of each year of the horses, mules, dairy and other cattle, sheep, hogs, fowls, hives of bees, and farm equipment on each project. The purpose of this report is to show the stock and equipment assets for the project at the close of each year and to show the increased investment in this kind of property during the year. The information required to fill out this form will be gathered on Form 7-332, water user census.

162. Land investment report, Form 7-318.—It is the purpose of this report to bring together the elements of investment in the lands of the projects as improved by the construction of fences, ditches, and buildings, the clearing and leveling of the land, and the amount invested for water right or building charges. In order to make the information on the form of value it is necessary that the estimates for the various elements be carefully determined. The total land investment shows quite clearly the land development resulting from the construction of the project.

163. Farm summary, Form 7-319.—This form is of a summary nature, and its purpose is to bring together the principal facts given on Forms 7-316, 7-317, and 7-318.

164. Monthly water diversion, Form 7-321.—This form is for the purpose of recording the amounts of water diverted from the sources of supply for the project for the various months in the year, the total diversion, and the amount diverted per acre irrigated.

165. Monthly water distribution, Form 7-322.—This form shows the amounts of water diverted for direct use for the project as a whole for the land irrigated, the amount of water lost, and the rate of distribution by months through the year. The information on this form affords a means of comparison of the quantities of water diverted for direct use and the quantities delivered to the land, so that the efficiency of the canals and laterals as a whole for the project may be determined.

166. Canal seepage and evaporation losses, Form 7-323.—This form provides a means of showing the canal losses for some of the canals in typical soils on the project, for determining local conditions, and giving a general view of the subject of water losses in canal systems.

It is not intended that this information should be compiled for all of the canals of the project, but for such of the canals only as it may be advisable to study during a series of years.

167. Power plant report, Forms 7-1015 and 7-1016.—This report is a record of the operating data and itemized cost of operation and maintenance of power plants, subdivided into the principal features of these plants. The forms are devised to serve for monthly and annual reports.

168. Power substation report, Form 7-1017.—This report is similar to the power plant report, but applicable to the substations of the power system.

169. Pumping station report, Forms 7-1019 and 7-1020.—This report is similar to the power plant report, but applicable to pumping plants.

170. Transmission line report, Form 7-1018.—This report is similar to the power plant report, but applicable to transmission lines.

171. Power system summary report, Form 7-1225.—This report is of a summary character and is intended to bring together the principal facts given on Forms 7-1015, 7-1016, 7-1017, 7-1019, 7-1020, and 7-1018, with a summary of costs, earnings, and distribution of power for the system.

172. Cost of operation and maintenance, Form 7-1224.—This report is devised to bring together the total costs of operation and maintenance and to determine for the irrigation system, the drainage system, and the two combined, the unit costs of operation and of maintenance per acre-foot of water handled, per acre of land irrigated and irrigable under the project system proper, and per mile of canal operated.

173. General summary of operation and maintenance results, Form 7-329.—This report is also of a summary character and the information needed for its compilation can be found on the various forms required for the annual operation and maintenance report.

174. Outline.—The annual operation and maintenance reports should be prepared on the basis of the following outline. Additional subjects of importance and interest should be added by the project manager.

175. Location and climatic conditions.—Abstract or refer to the information as given in the annual report.

176. Statement of irrigation plan.—Abstract this as given in the annual report, or refer to it by volume and page.

177. Water supply.—Refer to data in the annual report or give a brief statement of the principal facts.

178. General agricultural conditions.—Refer to these data if contained in the annual report or state briefly any general conclusions.

179. **Lands opened for irrigation.**—Refer to appropriate material in the annual report, giving any general conclusions.

180. **Description of system operated.**—Describe briefly the storage, diversion, power and pumping works, canals, and laterals operated during the year and the number of years operated. Describe the land irrigated as to the time of opening for irrigation and the general soil conditions.

181. **Weather observations.**—(a) In as few words as possible give a discussion of the range of temperature, precipitation, and wind movement, if possible, and their effect on crops and on maintenance. If no records are kept by the service, the data may possibly be obtained from an experiment farm or other observation station.

(b) Compile the weather conditions on Form 7-330.

182. **Operation.**—(a) Give a discussion of the beginning and end of the irrigation season, of the fluctuations in storage and discharges of water, and causes of such fluctuations.

(b) Explain the methods of water delivery; also, methods of division and measurement.

(c) Discuss the duty of water, effect of climatic conditions, soils, and crops.

(d) Discuss losses in the main canal, laterals, and reservoirs, and compare them with the losses of former years.

(e) Discuss the causes of the rise of ground water, the amount and spread of seeped areas, and the measures being taken to reclaim land.

(f) Give brief descriptions of engineering work on measurement of water, seepage investigations, and the determination of coefficients.

(g) Fill in Form 7-321, monthly water diversion, showing the amount of water used by the project annually for the last five years.

(h) Compile on Form 7-312, monthly water storage, the required data from the project reservoir records, filling out this form separately for the year for each reservoir on the project.

(i) Fill out Form 7-322, monthly water distribution, from the project records for the land irrigated.

(j) Fill out Form 7-323, canal seepage and evaporation losses, from the project records for the main canal and for a canal or lateral passing through each class of typical soil on the project.

(k) Fill out Forms 7-1015 and 7-1016, power-plant report, for each permanent hydroelectric, gas-electric, and steam-electric power plant in use.

(l) Fill out Form 7-1017, power substation report, for each power substation operated during the year.

(m) Fill out Forms 7-1019 and 7-1020, pumping-station report, for each electric, gas, steam, or hydraulic pumping station operated during the year.

(a) Fill out Form 7-1018, transmission-line report, for each transmission line operated.

(o) Fill out Form 7-1225, power-system summary report, for the whole power system.

183. Farm operations.—(a) Give a discussion of varieties of crops, acreage, yield, values, and make comparisons with former years and with dry-land crops. Give reasons for success or failure, as caused by hail, excessive rain, and drought. Give new crops tried, best paying crops, and also a comparison with the crop condition under private canals in the same district. Give a few maximum crop yields.

(b) Give a brief discussion of live stock and returns from live stock, including poultry, dairying, and bees; also, range stock fattened for the market.

(c) Fill out Form 7-316, crop-yield report. Advance copies of the crop-yield report in duplicate should be sent to the director as soon after its compilation as possible. Care should be exercised to give conservative estimates in this report,

(d) Compile the data called for on Form 7-317, stock yield and equipment report.

(e) Bring together on Form 7-318, land-investment report, information concerning the improvements on the project for the year covered by the report and for the preceding year.

(f) Summarize the crops, stock, equipment, and land-investment reports for the current and previous years on Form 7-319, farm summary.

184. Maintenance.—(a) Discuss the special difficulties encountered in the season's maintenance work, such as slides, breaks, erosion by water or wind, burrowing animals, and weeds. Where new experiments have been made, the results should be given.

(b) Discuss the life of wooden and concrete structures, methods of renewal, giving any data along this line that may be of use to other projects.

(c) Discuss briefly new work performed by the operation and maintenance organization but not included in the operation and maintenance charges, such as the construction of new laterals, flumes, and drains.

185. Operation and maintenance costs.—(a) Give an analysis of the operation and maintenance costs, and in particular point out the causes of high or low costs as compared with the estimate for the year. Give some idea as to the changes in future costs of the various important items.

(b) Compile the data required to fill out Form 7-1224, cost of operation and maintenance. The necessary information can be obtained from the project books, from the crop-yield report, and from the computations of the irrigable areas under the canals operated.

186. Settlement and development.—(a) Give a discussion of the general prosperity of the settlers and their chances of paying water charges.

(b) Discuss briefly the matter of collections, the money received by the United States to date, payments delinquent, and money that must be paid to enable the water users to receive water next season.

(c) Discuss new orders and public notices, stating why they were issued and their effects.

(d) State changes in ownership, values of land, cancellations, and any tendency toward larger or smaller holdings. Also give methods of sale and division of large tracts of private land.

(e) Refer briefly to the work of the experiment farm, interest shown by the farmers in it, agricultural demonstrations and advice, institute work, and farmers' clubs.

(f) Discuss the commercial development of the project, including the factories, shipping facilities, rates to and from the principal markets, new town sites, changes in population, and general development.

(g) Discuss the needs of the project in order to promote the general condition of the water users.

(h) Analyze the complaints of the farmers.

(i) Give the general conditions of the water users on the project and fill out Form 7-314, status of water users.

(j) Bring together on Form 7-315 data showing the general conditions on the project as to the status of lands and water rights. A large part of the information required for this table can be obtained from the monthly reports on lands, Form 7-642. A record of the assignment and relinquishment of public lands should be kept in all of the project offices, and these records will furnish the necessary information for this form.

187. Operation and maintenance organization.—(a) Note the organization in charge of various districts and approximate costs of operating and maintaining them.

(b) Prepare a table of organization and of costs.

188. Summary of operation and maintenance results.—Bring together on Form 7-329 a final summary of operation and maintenance results as contained in the various other reports and tables required for the annual operation and maintenance reports.

189. Appendix.—Give hydrographs and weather charts of interest and a discussion of them.

190. Photographs.—Insert a few well-selected photographs.

191. Index.—Place an index at the close of the report.

APPENDIX.

FEDERAL RECLAMATION LAWS ANNOTATED.

A Chronological Compilation of the Principal Statutes of the United States Relating to the Reclamation of Arid Lands.

With a Synopsis of State and Territorial Enactments in Reference to Federal Reclamation; also Various General Statutes of the United States Frequently Referred to in Connection with the Operations of the Reclamation Service.

By OTTAMAR HAMELE, *district counsel, U. S. Reclamation Service.*

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CONFIRMATION OF WESTERN WATER RIGHTS.

Sec. 2339, R. S. [Vested rights to use of water—Right of way for canals—Liability for injury.] Whenever, by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes have vested and accrued, and the same are recognized and acknowledged by the local customs, laws, and the decisions of courts, the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purposes herein specified is acknowledged and confirmed; but whenever any person, in the construction of any ditch or canal, injures or damages the possession of any settler on the public domain, the party committing such injury or damage shall be liable to the party injured for such injury or damage.

The foregoing section of the United States Revised Statutes is taken from "An act granting the right of way to ditch and canal owners over public lands, and for other purposes," approved July 26, 1866, ch. 262, 14 Stat., 251.

The very large number of decisions un-

der this and the following section, regarding the doctrine of prior appropriation of the use of public water, not being directly connected with the general operations of the Reclamation Service, references thereto are omitted for the sake of brevity.

Sec. 2340, R. S. [Patents, preemptions, and homesteads subject to vested and accrued water rights.] All patents granted or preemptions or homesteads allowed shall be subject to any vested and accrued water rights, or rights to ditches and reservoirs used in connection with such water rights, as may have been acquired under or recognized by the preceding section.

The foregoing section of the United States Revised Statutes is taken from "An act to amend 'An act granting the right of way to ditch and canal owners

over the public lands, and for other purposes,'" approved July 9, 1870, ch. 235, 16 Stat., 217.

IRRIGATION SURVEY.

(Extract from) An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1900, and for other purposes. (Act Mar. 2, 1899, ch. 411, 25 Stat., 939.)

[Irrigation survey—Report of expenses.] * * * Irrigation survey: For the purpose of investigating the extent to which the arid region of the United States can be redeemed by irrigation and the segregation of irrigible lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation and for ascertaining the cost thereof, and the prevention of floods and overflows, and to make the necessary maps, * * * and the Director of the Geological Survey, under the supervision of the Secretary of the Interior, shall make a report to Congress on the first Monday in December of each year, showing in detail how the said money has been expended, the amount used for actual survey and engineer work in the field in locating sites for reservoirs, and an itemized account of the expenditures under this and any future appropriation. * * * [25 Stat., 960.]

**SPECIAL PROVISIONS OF SUNDRY CIVIL APPROPRIATION ACT
OF AUGUST 30, 1890.**

(Extracts from) An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1891, and for other purposes. (Act Aug. 30, 1890, ch. 837, 26 Stat., 371.)

[Restoration of irrigable lands—Existing bona fide entries validated—Reservoir sites to be reserved.] * * * so much of the act of October second, eighteen hundred and eighty-eight, entitled "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and eighty-nine, and for other purposes," as provides for the withdrawal of the public lands from entry, occupation and settlement, is hereby repealed, and all entries made or claims initiated in good faith and valid but for said act, shall be recognized and may be perfected in the same manner as if said law had not been enacted, except that reservoir sites heretofore located or selected shall remain segregated and reserved from entry or settlement as provided by said act, until otherwise provided by law, and reservoir sites hereafter located or selected on public lands shall in like manner be reserved from the date of the location or selection thereof. [26 Stat., 391.]

A portion of the sundry civil appropriation act of October 2, 1888, ch. 1069, 25 Stat., 526, which includes the provision repealed by the above section, is as follows:

"For the purpose of investigating the extent to which the arid region of the United States can be redeemed by irrigation, and the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation and the prevention of floods and overflows, and to make the necessary maps, including the pay of employees in field and in office, the cost of all instruments, apparatus, and materials, and all other necessary expenses connected therewith, the work to be performed by the Geological Survey, under the direction of the Secretary of the Interior, the sum of \$100,000 or so much thereof as may be necessary. And the Director of the Geological Survey under the supervision of the Secretary of the Interior shall make a

report to Congress on the first Monday in December of each year, showing in detail how the said money has been expended, the amount used for actual survey and engineer work in the field in locating sites for reservoirs and an itemized account of the expenditures under this appropriation. And all the lands which may hereafter be designated or selected by such United States surveys for sites for reservoirs, ditches, or canals for irrigation purposes and all the lands made susceptible of irrigation by such reservoirs, ditches, or canals are from this time henceforth hereby reserved from sale as the property of the United States, and shall not be subject after the passage of this act, to entry, settlement, or occupation until further provided by law: *Provided*, That the President may at any time in his discretion by proclamation open any portion or all of the lands reserved by this provision to settlement under the homestead laws."

See opinion of Acting Attorney General William H. Taft on the effect of the foregoing, 19 Op. Atty. Gen., 564.

[Land patents to reserve right of way for Government ditches.]
 * * * That in all patents for lands hereafter taken up under any of the land laws of the United States or on entries or claims validated by this act, west of the one hundredth meridian, it shall be expressed that there is reserved from the lands in said patent described a right of way thereon for ditches or canals constructed by the authority of the United States. [26 Stat., 391.]

Purpose of the act.—By a series of acts and resolutions passed by Congress beginning as early as 1888 (act Oct. 2, 1888, c. 1069, 25 Stat., 526; act March 20, 1888, 25 Stat., 618; act March 2, 1889, c. 411, 25 Stat., 960; act Aug. 30, 1890, c. 837, 26 Stat., 391), the Government unmistakably declared a purpose to reclaim its arid lands by conducting water to and across them, and provision was shortly made to enable it to carry out that purpose. *United States v. Van Horn et al.* (Colorado), 197 Fed., 611.

Under the provisions of the act of August 30, 1890, it was the evident intention of Congress to reserve perpetually to the Government an easement and right of way through and over any and all lands west of the one hundredth meridian that the Government might grant to settlers and purchasers subsequent to the passage of the act, and to thereby reserve the easement and right of way for the construction, maintenance, and operation of any ditches and canals the Government may construct at any time in the future for the irrigation and reclamation of arid lands. *Green v. Wilhite et al.*, 14 Idaho 238, 83 Pac., 971.

"Taken up."—If the actual disposition occurred after the passage of the act, the land was undoubtedly "taken up" within the meaning of those words as used in the act, and this would be so whether the disposition occurred through allotment, sale, homestead, or other manner of disposition. *Clement Ironshields*, 40 L. D., 28.

Where, however, in certain reservations set apart for Indian occupancy, particular tracts have been set apart, actually occupied, or improved under some usage or custom, with a view to ultimate allotment to an Indian prior to the passage of the act, the tracts being afterward

allotted, such tracts must be considered as having been "taken up" prior to the passage of the act. *Idem.*

"Constructed."—The word "constructed" as used in the act of August 30, 1890, has a general reference and application to ditches or canals constructed by authority of the United States, without reference to the time of such construction. *Green v. Wilhite et al.*, 14 Idaho 238, 93 Pac., 971.

The word "constructed" as so used does not limit the reservation to a right of way for ditches already constructed, but extends as well to those "to be constructed" by the Government in furtherance of its irrigation scheme for the reclamation of arid lands. *Green v. Wilhite et al.* (Idaho), 160 Fed., 855.

Lands affected.—This provision applies only to entries under the public or general land laws. *Secretary's Instructions* of June 4, 1903, 32 L. D., 147.

All lands taken up under any of the public land laws of the United States subsequent to October 2, 1888, are subject to right of way for ditches or canals constructed by authority of the United States. *General Land Office Circular* of July 25, 1903.

—National forests.—The mere fact that lands reserved as reservoir sites under the acts of October 2, 1888 (25 Stat., 526) and August 30, 1890 (26 Stat., 391), fall within the exterior limits of a national forest subsequently created does not in anywise change their status of reserved reservoir lands, or render them subject to appropriation under section 4 of the act of February 1, 1905 (33 Stat., 628), granting rights of way for the construction and maintenance of dams, reservoirs, etc., for municipal and mining purposes, within and across forest reserves of the United States. *Salt Lake City*, 41 L. D., 31.

—**Unallotted Indian lands, Ute Reservation, Colorado.**—The act of June 15, 1880, ch. 223 sec. 3, 21 Stat., 208, providing for allotment in severalty of lands of the Ute Indian Reservation in Colorado, further provides that "all lands not so allotted shall be held and deemed to be public lands of the United States and subject to disposal under the laws providing for the disposal of the public lands at the same price and on the same terms as other lands of like character, * * * provided that * * * said lands * * * shall be subject to cash entry only in accordance with existing law." *Held*, that it was competent for Congress to change the manner of disposition of such lands in so far as third parties were concerned, and that persons taking preemptions thereon after the passage of the act of August 30, 1890, ch. 837, sec. 1, 26 Stat., 391, reserving from all public lands thereafter taken up right of way for ditches and canals constructed by the authority of the United States, took them subject to such provision. *United States v. Van Horn, et al., ante.*

Payment for gravel.—Compensation must be made for gravel taken from a right of way acquired under this section for use off the right of way where found. *Reclamation Decision*, July 26, 1913, in re Belanger (Lower Yellowstone).

Rights of the United States.—Under this provision the Government has full authority to construct canals or ditches over any such lands in connection with reclamation projects. *Secretary's Instructions* of June 6, 1908, 36 L. D., 482.

All subsequent entrymen take their land subject to the right of the United States to construct ditches and canals over it whenever and wherever required in carrying out any of its reclamation projects. *United States v. Van Horn et al., ante.*

Not void for indefiniteness.—This provision must be construed in the line of the known purpose of the Government to reclaim its arid lands by conducting water upon them, and it is not void for indefiniteness because the right of way reserved is not specifically described, but

is within the undoubted powers of Congress and valid. *United States v. Van Horn et al., ante.*

Railroad rights of way.—This act does not apply to railroad rights of way acquired under the provisions of the act of March 3, 1875, ch. 152, 18 Stat., 482. *Minidoka and S. W. R. Co. v. Weymouth et al.*, 19 Idaho, 234, 113 Pac., 455.

In referring to lands "taken up" and land "entries" and lands "patented" it does not refer to or include easements and rights of way granted for specific purposes where the fee does not pass and where no patents are issued, and where the amount of land covered by the easement is not limited in area or extent. *Idem.*

That the United States may in the future reasonably acquire rights of way for ditches in furthering a reclamation project, in addition to those now occupied by existing canals, and that it may be entitled to reserve land therefor under this act, does not prevent a railroad company from occupying lands in *presenti* legally conveyed to it within a reclamation reservation by a homestead entryman. *United States v. Minidoka & S. W. R. Co. (Idaho)*, 176 Fed., 762; reversed in 190 Fed., 491; affirmed in 235 U. S., 211, 59 U. S., L. Ed., 200, 35 S. Ct., 46.

The reservation of rights of way for canals and ditches required by this act to be inserted in patents for public lands west of the one hundredth meridian need not be inserted in patents issued for lands granted to railroad companies to which the grant or right of the company attached prior to the date of said act; but should be inserted in patents for lands covered by indemnity selections made by railroad companies, and in selections made by the Northern Pacific Railway Co., under the provisions of the act of July 1, 1898, in all cases where such indemnity or other selections are approved subsequent to August 30, 1890. *Secretary's Instructions* of April 19, 1912, 42 L. D., 396.

Injunction suits.—An injunction issued by a State court in a suit brought against the engineer in charge of a Government

irrigation project and his foreman, as individuals, restraining the defendants and all persons under their control from entering upon certain lands and constructing a Government canal across the same, is not a bar to a suit in a Federal court by the United States to establish its right to construct such canal under the reservation of right of way therefor contained in the act of August 30, 1890, ch. 837, sec. 1, 26 Stat., 391, and to enjoin the owners of said lands, which were acquired under the public land laws after the passage of said act, from interfering with such construction. *United States v. Van Horn et al., ante.*

Equity has jurisdiction of a suit by the United States against the owners of lands acquired under the public land laws after the passage of this act to enjoin them from interfering with its construction of

an irrigation canal over such lands under the reservation of right of way therefor contained in said act. *Idem.*

Miscellaneous references.—Debate in Congress as to right-of-way provision of act of August 30, 1890, 21 Congressional Record, Fifty-first Congress, first session, pages 7774, 7877, 7930, 8275, 8323, 8329, 9139, 9151, 9152, 9154, 9155.

Executive Document, No. 136, Senate, Fifty-first Congress, first session.

"Public Lands of the Arid Region," in Report of Commissioner of the General Land Office, 1890, pages 59-78 inclusive.

General Land Office Circular of October 5, 1893, to registers and receivers directing indorsements in reference to right-of-way reservations, 17 L. D., 521.

Sections 17 and 18, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

RESERVOIR SITES AND RIGHTS OF WAY.

(Extract from) An act to repeal timber-culture laws, and for other purposes. (Act Mar. 3, 1891, ch. 561, 26 Stat., 1095.)

* * * * *

Sec. 17. [Reservoir sites to contain only necessary lands—Occupied lands excluded when practicable.] That reservoir sites located or selected and to be located and selected under the provisions of "An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June thirtieth, eighteen hundred and eighty-nine, and for other purposes," and amendments thereto, shall be restricted to and shall contain only so much land as is actually necessary for the construction and maintenance of reservoirs; excluding so far as practicable lands occupied by actual settlers at the date of the location of said reservoirs. [26 Stat., 1101.]

Sec. 18. Rights of way to ditch companies—Not to interfere with Government occupation—Approval—Water control of States. That the right of way through the public lands and reservations of the United States is hereby granted to any canal or ditch company formed for the purpose of irrigation and duly organized under the laws of any State or Territory, which shall have filed, or may hereafter file, with the Secretary of the Interior a copy of its articles of incorporation, and due proofs of its organization under the same, to the extent of the ground occupied by the water of the reservoir and of the canal and its laterals and 50 feet on each side of the marginal limits thereof; also the right to take from the public lands adjacent to the line of the canal or ditch material, earth, and stone necessary for the construction of such canal or ditch: *Provided*, That no such right of way shall be so located as to interfere with the proper occupation by the Government of any such reservation, and all maps of location shall be subject to the approval of the department of the Government having jurisdiction of such reservation and the privilege herein granted shall not be construed to interfere with the control of water for irrigation and other purposes under authority of the respective States or Territories. (26 Stat., 1101.)

* * * * *

Applies to Federal reclamation.—For the purpose of carrying out the provisions of the reclamation act, the Government may avail itself of the privileges conferred by this act to the same extent that indi-

viduals, corporations, or associations may exercise such privileges, and subject to the same conditions and limitations. Opinion Assistant Attorney General, May 18, 1905, 33 L. D., 563.

THE RECLAMATION ACT.

An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands. (Act of June 17, 1902, ch. 1093, 32 Stat., 388.)

[Sec. 1. Reclamation fund established from public land receipts—Exception—Support of agricultural colleges—Deficiency.] That all moneys received from the sale and disposal of public lands in Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming, beginning with the fiscal year ending June thirtieth, nineteen hundred and one, including the surplus of fees and commissions in excess of allowances to registers and receivers, and excepting the five per centum of the proceeds of the sales of public lands in the above States set aside by law for educational and other purposes, shall be, and the same are hereby, reserved, set aside, and appropriated as a special fund in the Treasury to be known as the "reclamation fund," to be used in the examination and survey for and the construction and maintenance of irrigation works for the storage, diversion, and development of waters for the reclamation of arid and semiarid lands in the said States and Territories, and for the payment of all other expenditures provided for in this act: *Provided*, That in case the receipts from the sale and disposal of public lands other than those realized from the sale and disposal of lands referred to in this section are insufficient to meet the requirements for the support of agricultural colleges in the several States and Territories, under the act of August thirtieth, eighteen hundred and ninety, entitled "An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts, established under the provisions of an act of Congress approved July second, eighteen hundred and sixty-two," the deficiency, if any, in the sum necessary for the support of the said colleges shall be provided for from any moneys in the Treasury not otherwise appropriated. [32 Stat., 388.]

See act of February 25, 1905, 33 Stat., 814, extending the reclamation act to a portion of the State of Texas.

See act of June 12, 1906, 34 Stat., 259, extending the reclamation act to the entire State of Texas.

Constitutionality of reclamation act.—The reclamation act is within the power of Congress as to lands within the States as well as Territories, under Constitution, article 4, section 3, giving it power "to dispose of and make all needful rules and

regulations respecting the territory or other property belonging to the United States," and is not in violation of the Constitution on the ground that it authorizes the expenditure of public money without an appropriation, since it is in itself an appropriation of the proceeds of land sold, nor as delegating legislative authority to the Secretary of the Interior. *United States v. Hanson*, 167 Fed., 881, 93 C. C. A., 371.

The United States has constitutional authority to organize and maintain an irrigation project within a State where it owns arid lands whereby it will associate with itself other owners of like lands for the purpose of reclaiming and improving them, and for that purpose it exercises the right of eminent domain against other land owners to obtain land necessary to carry the proposed project in effect. *Burley v. United States et al.*, 179 Fed., 1, 102 C. C. A., 429, 33 L. R. A. (N. S.), 807, affirming 172 Fed., 615. See also *Magruder v. Belle Fourche Valley Water Users Association*, 219 Fed., 72, 133 C. C. A., 524.

Irrigation plan contemplated by the act.—The act contemplates the irrigation of private lands as well as lands belonging to the Government, and the fact that a scheme contemplates the irrigation of private as well as a large tract of Government land does not render the project illegal, so as to prevent the condemnation of land necessary to carry it out. *Burley v. United States, ante*.

In a proceeding by the United States to condemn land for reservoir purposes, whether a more feasible plan of irrigation than the one adopted might be devised, or some other site selected for the reservoir, is immaterial, the determination of the proper government authorities being conclusive. *United States v. Burley*, 172 Fed., 615.

Contract to supply water for irrigation district.—Under the reclamation act the Secretary of the Interior has power to contract with an irrigation district to supply, or partially supply, the district with water. *Pioneer Irrigation District v. Stone*, 23 Idaho, 344, 130 Pac., 382; *Hillcrest Irrigation District v. Brose*, 24 Idaho,

376, 133 Pac., 663; *Nampa and Meridian Irrigation District v. Petrie*, 153 Pac., 425.

Assessment for operation and maintenance of project.—Irrigable lands may be assessed with the annual cost of operation and maintenance under the authority conferred on the Secretary of the Interior. *Swigart v. Baker*, 229 U. S., 187, 57 L. Ed., 1143, 33 Sup. Ct., 645, reversing 199 Fed., 865, 118 C. C. A., 313, and affirming 196 Fed., 569.

The history of the reclamation act of 1902 shows that it was the intent of Congress that the cost of each irrigation project should be assessed against the property benefited and that the assessments as fast as collected should be paid back into the fund for use in subsequent projects without diminution. This intent can not be carried out without charging the expense of maintenance during the Government-held period as well as the cost of construction. *Idem*.

Subsequent legislative construction of a prior act may properly be examined as an aid to its interpretation; and so held that statutes passed since the reclamation act of 1902 indicate that Congress has construed the provisions of that act as authorizing the Secretary of the Interior to assess cost of maintenance as well as of construction of irrigation projects upon the land benefited. *Idem*.

Where the executive officer charged with its enforcement annually reports to Congress the same construction of a statute, it is significant if Congress never has taken any adverse action in regard to such construction. *Idem*.

Quaere whether Congress may not by legislation construe a prior statute so that as to all matters subsequently arising the action is legislative in character. *Idem*.

The repeated and practical construction of the reclamation act of 1902 by both Congress and the Secretary of the Interior, in charging cost of maintenance as well as construction, accords with the provisions of the act taken in its entirety and is followed by this court. *Idem*.

Not a revenue law—Removal of suits.—The act is not a "revenue law" within the meaning of Revised Statutes, section 643, which provides for the removal of

suits brought in State courts "against any officer appointed under or acting by authority of any revenue law of the United States." On account of any act done under color of his office, a suit against the officer in charge of reclamation work to determine water rights in a stream is not removable by him thereunder. Nor is there any reason of public policy why such suit should be transferred to the Federal courts, as by the terms of the act the rights of the Government as an appropriator of water are governed by the laws of the State and are no greater than those of any other officer. *Twin Falls Canal Co. (Ltd.) v. Foote et al.*, 192 Fed., 583. Followed in *City of Stanfield v. Umatilla River Water Users' Association et al.*, 192 Fed., 596.

Reclamation fund a trust fund.—The official reports show that, in 1902, there were in 16 States and Territories 535,486,731 acres of public land still held by the Government and subject to entry. A large part of this land was arid, and it was estimated that 35,000,000 acres could be profitably reclaimed by the construction of irrigation works. The cost, however, was so stupendous as to make it impossible for the development to be undertaken by private enterprise, or, if so, only at the added expense of interest and profit private persons would naturally charge. With a view, therefore, of making these arid lands available for agricultural purposes by an expenditure of public money, it was proposed that the proceeds arising from the sale of all public lands in these 16 States and Territories should constitute a trust fund to be set aside for use in the construction of irrigation works, the cost of each project to be assessed against the land irrigated, and as fast as the money was paid by the owners back into the trust it was again to be used for the construction of other works. Thus the fund, without diminution except for small and negligible sums not properly chargeable to any particular project, would be continually invested and reinvested in the reclamation of arid land. *Swigart v. Baker, ante*.

See 14 Comp. Dec., 361, holding that the reclamation fund is a special fund, but not a trust fund.

Reclamation fund, of what constituted.—In view of the decision of the Supreme Court in *United States v. Gratiot* (14 Pet., 526), there can be no doubt that a lease is a "disposal" of lands, as contemplated by section 1 of the reclamation act. The said section appropriates "all moneys received from the sale and disposal of public lands" in certain States "except the 5 per cent of the proceeds of the sales of public lands in the above States set aside by law for educational and other purposes." The full 100 per cent of the proceeds of the lease is appropriated, without deduction, to the reclamation fund by section 1 of the reclamation act. Departmental decision, in *re Owl Creek Coal Co.*, August 31, 1912.

Moneys derived by the Reclamation Service from the lease of lands of the Uintah Indian Reservation should be covered into the Treasury to the credit of the reclamation fund, the liability of the Reclamation Service to compensate the Indians for the use of such lands not affecting the disposition of the proceeds derived from their use. 14 Comp. Dec., 285.

The act of June 27, 1906 (34 Stat., 518), granting to the State of California 5 per cent of the net proceeds of cash sales of public lands in that State, including sales made prior to its passage and since the admission of the State, does not authorize the withdrawal of any part of the proceeds of public lands of said State carried to the reclamation fund prior to its passage. Five per cent of the net proceeds of cash sales of public lands in the State of California made after the passage of the act of June 27, 1906, is set aside by that act for educational purposes and excepted from moneys appropriated after its passage to the reclamation fund. 13 Comp. Dec., 289.

It is not the intent of Congress by the acts of April 16 and June 27, 1906 (34 Stat., 116 and 520), to take away the right of the State of Idaho to the 5 per cent of the net proceeds of sale from public lands for the support of the common schools of the State lying within said State. If, however, the whole proceeds of said sales have been covered into the "reclamation fund" and the 5

per cent paid to the State out of the permanent indefinite appropriation therefor, the reclamation fund should be charged therewith. 20 Comp. Dec., 365.

Moneys paid to the Treasurer of the United States in accordance with the provisions of section 4 of the act of August 20, 1912 (37 Stat., 321), authorizing the Attorney General to compromise suits involving lands purchased from the Oregon and California Railroad Co., are not "moneys received from the sale and disposal of public lands" within the purview of the reclamation act, but are "miscellaneous receipts." Effecting a compromise of a suit does not constitute a sale of public lands. Where a conveyance by a grantee of public lands is decreed void or is set aside if found voidable only, a forfeiture to the United States does not *ipso facto* result, and lands once granted by the United States can not thereafter be classed as public lands so long as any unextinguished right or title therein under or through said grant exists. 20 Comp. Dec., 397.

The amount of purchase money refunded in reclamation States, in cases of erroneous sales of public land, under the provisions of sections 2362 and 3689, Revised Statutes, should be deducted from the total sums received in said States in computing the amounts to be transferred to the reclamation fund by appropriation warrants. 20 Comp. Dec., 415.

This section does not authorize the transfer to the reclamation fund of moneys paid to a receiver by an intended purchaser of public lands unless the sale is confirmed and the lands are actually conveyed by the United States to the purchaser. *Idem*.

Moneys erroneously paid to a receiver of public moneys by a would-be purchaser of public lands and which are required by law to be refunded are not moneys received from the sale or disposal of public lands within the meaning of this act. 20 Comp. Dec., 597.

See act of March 3, 1905, 33 Stat., 1032, and notes thereunder.

Reclamation fund, application of.—The authority of the Secretary respecting the use of the reclamation fund is to make preliminary investigations to determine

the feasibility of any contemplated irrigation project, to construct reservoirs and irrigation works, and operate and maintain those thus constructed, and to acquire "for the United States by purchase or condemnation under judicial process" rights or property necessary for these purposes. California Development Co., 33 L. D., 391.

The drilling of wells for the purpose of determining whether underground water exists that may be made available in connection with a project comes within the power conferred by this section "to make examinations and surveys * * * for the development of waters." Opinion Assistant Attorney General, 34 L. D., 533.

Since, in the absence of specific statutory authority, one department or branch of the Government is not authorized to enter into contracts with another such department or branch, and to make payments thereunder, the General Land Office may not lawfully pay rent to the Reclamation Service for the use of a part of a warehouse when the reclamation fund is not depleted by such use. However, any cost of maintenance of the warehouse may be apportioned properly between the Reclamation Service and the General Land Office. 22 Comp. Dec., 684.

The Reclamation Service is a field service under the control of the Secretary of the Interior, with its headquarters located at Washington, as distinguished from a part of the Interior Department *proper*, or bureau or office thereof, or other Government establishment at Washington; and therefore printing and binding required for such service is not "printing and binding" for an executive department, or bureau or office thereof, or other Government establishment at Washington within the meaning of section 2 of the sundry civil act of June 30, 1906 (34 Stat., 697), and is not required by the provisions of such section to be submitted to Congress in the annual estimates of the expenses of printing and binding. 13 Comp. Dec., 733.

The appropriation for public printing and binding is exclusively applicable to the expense of printing done at the Government Printing Office for an executive department; and therefore the appropri-

ation for the Reclamation Service can not be used to pay for printing done at said office for the Department of the Interior. 11 Comp. Dec., 398.

The Reclamation Service is not a part of an executive department within the meaning of the public printing act of January 12, 1895, and therefore payment for printing for the sole and exclusive use of the Reclamation Service should be made from the appropriation for said service, and not from the appropriation for printing for the Interior Department. 11 Comp. Dec., 595.

The Secretary of the Interior having by authority of section 10 of the act of June 17, 1902, authorized the furnishing of medical attendance and medicines to employees of the Reclamation Service engaged upon work in connection with the Salt River irrigation project in Arizona, payment for medical attendance furnished such employees by a physician other than the one regularly employed for that purpose is authorized if it was at the time impracticable to secure the services of the regular physician. 11 Comp. Dec., 803.

While ordinarily the Government is not liable for the burial expenses of its deceased employees, payment of the reasonable expenses of a decent burial may be authorized when it is necessary for sanitary reasons to remove the remains of a deceased employee from the grounds on which other employees are located. 11 Comp. Dec., 789.

Reimbursement is not authorized for the value of a horse hired by the Reclamation Service and killed as the result of a fall while being driven by its owner in the regular discharge of the work for which hired, the Government not being an insurer of the animal in such a case. 22 Comp. Dec., 383. See 16 Comp. Dec., 68.

Section 5 of the act of July 16, 1914 (38 Stat., 508), relative to the purchase of motor-propelled or horse-drawn passenger-carrying vehicles is not limited to annual appropriations or to service in the District of Columbia, but applies to all Government funds made available for expenditure and to all branches of the Government service. That the United States Reclamation Service is a "branch

of the Government service" there can be no room for reasonable doubt. Therefore, in the absence of specific authority of law therefor, no appropriation for said service is available for the purchase of any motor-propelled or horse-drawn passenger-carrying vehicle. 21 Comp. Dec., 14. But see act March 3, 1915, 38 Stat., 859.

The reclamation fund may not be used as a reward for the apprehension of an employ of the Reclamation Service who may have been guilty of a breach of trust. Departmental decision, January 28, 1910.

In view of the fact that the Reclamation Service must proceed in many cases in conformity with State laws, and it is necessary to institute cases in State courts or intervene in those brought by others, the expense of such proceedings in State courts in payment of lawful costs, including expenses of necessary printing and costs of appeal bonds, should be charged to the reclamation fund. It is understood, of course, that such proceedings on behalf of the United States will be instituted by or with the authority of the Attorney General, and that it is not intended by this decision to include compensation to attorneys or counsel. Comp. Dec., June 30, 1914, and Dec. 6, 1916.

Costs in an action against an employee of the Reclamation Service, which is defended for said employee by the United States, are payable out of the reclamation fund. Comp. Dec., in re Marley v. Cone (Salt River), Dec. 6, 1916.

Reimbursement can not be made from the reclamation fund to a bank to cover exchange on a check given in payment of water charges. In re C. W. Kellogg, Comp. Dec., March 9, 1917.

See notes under section 10 of this act. **Reclamation Service.**—The Reclamation service is not a department or establishment of the Government in Washington, but a field service, and the act of June 17, 1910 (36 Stat., 531), relative to purchase of supplies for executive departments and other establishments in Washington is not applicable to the field force of the Reclamation Service. 20 Comp. Dec., 42, 13 *idem*, 733; 11 *idem*, 595.

The provision in the sundry civil act of June 30, 1906 (34 Stat., 727), authorizing the Secretary of the Interior to permit scientific and other employees of the Geological Survey employed in the field to make assignments of their pay and to reimburse such employees for expenses incurred by them in the discharge of their duties in the field and paid by them from their personal funds, does not extend to employees of the Reclamation

Service. 13 Comp. Dec., 783. See act May 27, 1908, 35 Stat., 350.

See 19 Comp. Dec., 181, in reference to chief of field party taking affidavit to expense account.

Miscellaneous references.—Weil on Water Rights in the Western States, 3d ed., vol. 2, ch. 60-63, p. 1275-1325.

Kinney on Irrigation and Water Rights, 2d ed., vol. 3, ch. 65, p. 2232-2339.

Long on Irrigation, 2d ed., sec. 308.

Sec. 2. [Authority to locate and construct irrigation works—Report to Congress.] That the Secretary of the Interior is hereby authorized and directed to make examinations and surveys for, and to locate and construct, as herein provided, irrigation works for the storage, diversion, and development of waters, including artesian wells, and to report to Congress at the beginning of each regular session as to the results of such examinations and surveys, giving estimates of cost of all contemplated works, the quantity and location of the lands which can be irrigated therefrom, and all facts relative to the practicability of each irrigation project; also the cost of works in process of construction as well as of those which have been completed. [32 Stat., 388.]

Governmental function not exercised in construction of works.—In the construction of works for the irrigation of arid public lands, the United States is not exercising a governmental function, nor even a strictly public function, but is promoting its proprietary interests. *Twin Falls Canal Co. v. Foote*, 192 Fed., 583.

"Including artesian wells."—This phrase is used to describe one class of irrigation works to be constructed in carrying out the scheme for reclaiming arid lands provided for in the act, and it is not contemplated by this section that such wells may be sunk as a part of the preliminary examinations authorized therein. Secretary's Instructions, March 3, 1903, 32 L. D., 278.

In the prosecution of the work provided for in the act it is not permissible to sink an artesian well where it is believed that if water is found it will not be suitable or

needed or used for irrigation purposes. *Idem*.

Examination of reclamation lands.—The Reclamation Service can not, while construction of a project is in progress, and prior to the laying out of its canals, undertake to reexamine, at the instance of individual claimants, particular tracts falling within the project, to ascertain whether or not such tracts are capable of service from its projected canals. *Lewis Wilson*, 42 L. D., 8.

Water appropriation.—When the Secretary of the Interior in the exercise of a reasonable discretion determines as to the validity of title to and as to the value of a right to appropriate water for irrigation purposes to be acquired by him under the provisions of the act of June 17, 1902, his decision is conclusive upon the accounting officers. 14 Comp. Dec., 724.

See notes under sections 4 and 7 of this act.

Sec. 3. [Withdrawal of lands for irrigation works—Withdrawal of lands susceptible of irrigation—Homestead entries—Determination whether project is practicable—Restoration and entry—Commutation.] That the Secretary of the Interior shall, before giving the public notice provided for in section four of this act, withdraw from public entry the lands required for any irrigation works contemplated under the provisions of this act, and shall restore to public entry any of the lands so withdrawn when, in his judgment, such lands are not required for the purposes of this act; and the Secretary of the Interior is hereby authorized, at or immediately prior to the time of beginning the surveys for any contemplated irrigation works, to withdraw from entry, except under the homestead laws, any public lands believed to be susceptible of irrigation from said works: *Provided*, That all lands entered and entries made under the homestead laws within areas so withdrawn during such withdrawal shall be subject to all the provisions, limitations, charges, terms, and conditions of this act; that said surveys shall be prosecuted diligently to completion, and upon the completion thereof, and of the necessary maps, plans, and estimates of cost, the Secretary of the Interior shall determine whether or not said project is practicable and advisable, and if determined to be impracticable or unadvisable he shall thereupon restore said lands to entry; that public lands which it is proposed to irrigate by means of any contemplated works shall be subject to entry only under the provisions of the homestead laws in tracts of not less than forty nor more than one hundred and sixty acres, and shall be subject to the limitations, charges, terms, and conditions herein provided: *Provided*, That the commutation provisions of the homestead laws shall not apply to entries made under this act. [32 Stat., 388.]

1. WITHDRAWALS.

(A) IN GENERAL.

Classes of withdrawals.—There are two classes of withdrawals authorized by the act, one commonly known as “withdrawals under the first form,” which embraces lands that may possibly be needed in the construction and maintenance of irrigation works, and the other, commonly known as “withdrawals under the second form,” which embraces lands

not supposed to be needed in the actual construction and maintenance of irrigation works, but which may possibly be irrigated from such works. General Land Office Circular of June 6, 1905, 33 L. D., 607.

Two classes of withdrawals are provided by the act, and the exception of homestead entry from the second has no application to the first, withdrawals and reservations under the first class being from the necessity of the case absolute.

United States v. Hanson, 167 Fed., 881; 93 C. C. A., 371.

Authority to withdraw is special and limited.—The authority to withdraw lands for irrigation purposes conferred upon the Secretary of the Interior is a special authority to make withdrawals for a particular purpose and is limited to the specific uses provided for in the act, or to uses incident to and in furtherance thereof. Opinion Assistant Attorney General, 33 L. D., 415.

Waters not reserved by withdrawal.—There is no authority to make such executive withdrawal of public lands in a State as will reserve the waters of a stream flowing over the same from appropriation under the laws of the State, or will in any manner interfere with its laws relating to the control, appropriation, use, or distribution of water. Opinion Assistant Attorney General, 33 L. D., 254.

Rights of way over withdrawn lands.—The use of rights of way over public lands within reservations for the purposes contemplated by either the act of February 15, 1901 (31 Stat., 790), or the act of June 17, 1902 (32 Stat., 388), will not be permitted if such use is incompatible with the public interest; and if at any time the public interest is jeopardized by the use of such rights of way after they have been granted, they may be revoked. Opinion Assistant Attorney General, 33 L. D., 389.

Discontinuance of temporary withdrawals.—See Charles G. Carlisle, 35 L. D., 649, overruling Mercer v. Buford Townsite, 35 L. D., 119.

Application to enter gives no vested right.—By the mere filing of an application to enter under the homestead law, upon which action is suspended, and tender of the necessary fees, the applicant acquires no vested right to or interest in the land applied for, nor does such application have the effect to segregate the land from the public domain, so as to prevent a withdrawal thereof for reclamation purposes. John J. Maney, 35 L. D., 250; Charles G. Carlisle, 35 L. D., 649.

Withdrawal effective upon cancellation of entry.—Upon the cancellation of a homestead entry covering lands em-

braced within a subsequent withdrawal made under the act, the withdrawal becomes effective as to such lands without further order. Cornelius J. Mac Namara, 33 L. D., 520.

Yosemite National Park lands may be withdrawn.—The Secretary of the Interior has the same right to withdraw land within the Yosemite National Park created by the act of October 1, 1890 (26 Stat., 650), for the uses and purposes contemplated by the act of June 17, 1902 (32 Stat., 388), that he has to withdraw lands for such purposes within forest reservations created under authority of the act of March 3, 1891 (26 Stat., 1095). Opinion Assistant Attorney General, 33 L. D., 389.

Abandoned military reservations.—Congress having by the act of July 5, 1894 (33 Stat., 103), provided for the disposal of lands in abandoned military reservations, the Secretary of the Interior is without authority to dispose of such lands in any other manner or to segregate them for use as a reservoir site in connection with an irrigation project. Secretary's Instructions of July 20, 1904, 33 L. D., 139.

Fort Assiniboine Military Reservation.—The fact that the act of April 18, 1896 (29 Stat., 95), provides that the lands in the abandoned portion of the Fort Assiniboine Military Reservation, thereby opened to entry, shall be disposed of only under the laws therein specifically named, does not prevent a withdrawal under the act of June 17, 1902 (32 Stat., 388), of any of said lands as to which no vested right has attached. Mary C. Sands, 34 L. D., 653.

Fort Buford Military Reservation.—Lands formerly within the Fort Buford Military Reservation were by the act of May 19, 1900 (31 Stat., 180), restored to the public domain and made subject to existing laws relating to disposal of the public lands, except such laws as are not specifically named therein, and are subject to withdrawal under the reclamation act as other portions of the public domain subject to entry under the general land laws; and a withdrawal of such lands for reclamation purposes is effective as to all of the lands for which entry was not made.

within three months from the filing of the township plat and prior to the withdrawal. Opinion Assistant Attorney General, 34 L. D., 347.

Application to purchase under timber and stone laws.—A withdrawal of lands under this act will defeat a prior application to purchase the same under the timber and stone laws where, at the date of withdrawal, the applicant had acquired no vested right to the lands embraced in his application. Board of Control, Canal No. 3, State of Colorado v. Torrence, 32 L. D., 472.

Mineral location not affected.—A mineral location founded on actual discovery of a valuable deposit of mineral within the limits of the claim, and maintained in accordance with the mining laws and local regulations, excepts the land from the operation of a withdrawal under this act. Secretary's Instructions of January 13, 1904, 32 L. D., 387.

Void affidavit of selector under act of June 4, 1907.—Where the affidavit as to the character and condition of the land, accompanying an application to make selection under the act of June 4, 1907 (30 Stat., 36), is executed before the selector acting as notary public, such affidavit is void, and the application can therefore have no effect to except the lands covered thereby from a subsequent withdrawal embracing the same in accordance with the provisions of section 8 of the act of June 17, 1902. Peter M. Collins, 33 L. D., 350.

Failure to note withdrawal on tract book.—Any withdrawal otherwise valid shall not be effected by failure to note same on tract book or otherwise follow the usual procedure. Secretary's Instructions of August 12, 1913, 42 L. D., 318.

Settlement upon another's entry confers no right.—No such rights are acquired by settlement upon lands embraced in the entry of another as will attach upon cancellation of such entry, where at that time the lands are withdrawn for use in connection with an irrigation project; nor is there any authority for purchase by the Government of the settler's claim or of the improvements placed upon the

land by him. George Anderson, 34 L. D., 478.

When order of restoration effective.—Where lands which have been withdrawn from all disposition are restored to entry, no application will be received or any rights recognized as initiated by the tender of an application for any such lands until the order of restoration is received at the local land office. George B. Pratt et al., 33 L. D., 146.

Rights of successful contestants.—Where land embraced in a homestead entry was withdrawn for use in connection with a reclamation project pending a contest which resulted in cancellation of the entry, the successful contestant, upon restoration of the land, is entitled to a period of 30 days from the date of such restoration within which to exercise his preference right to entry. Beach v. Hanson, 40 L. D., 607; Wright v. Francis et al., 36 L. D., 499.

By a successful contest against a desert-land entry the contestant does not acquire such a preference right of entry as will, prior to its exercise, except the land from the operation of a withdrawal made under said act. Emma H. Pike, 32 L. D., 395.

Contests affecting withdrawn lands.—See Secretary's Instructions of August 24, 1912, 41 L. D., 171, overruling Fairchild v. Eby, 37 L. D., 362, revoking General Land Office Regulations of January 19, 1909, 37 L. D., 365, and restoring paragraphs 6 (modified) and 7 of General Land Office Instructions of June 6, 1906, 33 L. D., 607. See Secretary's Instructions of September 4, 1912, 41 L. D., 241, amending said Instructions of August 24, 1912. See also New Castle Co. v. Zanganella, 33 L. D., 314.

Miscellaneous references.—General Land Office Circular of September 2, 1902, giving notice of the reclamation act of June 17, 1902, to registers and receivers, 31 L. D., 420.

General Land Office Circular of October 25, 1902, to registers and receivers, in reference to withdrawals for surveys, 31 L. D., 423.

Secretary's Instructions of February 11, 1906, regarding withdrawals, 32 L. D., 6.

Geological Survey Circular of March 31, 1904, regarding withdrawals and other matters, 32 L. D., 537.

General Land Office Circular of June 15, 1904, in reference to notice to entrymen, 33 L. D., 38.

General Land Office Circular of June 6, 1905, to registers and receivers in reference to withdrawals, 33 L. D., 607.

Secretary's Instructions of October 12, 1905, regarding withdrawals, 34 L. D., 158.

Secretary's Order of October 3, 1912, directing notice to persons unlawfully settled upon withdrawn lands. 41 L. D., 298.

Secretary's Instructions of June 12, 1914, in reference to restoration of withdrawn lands, 43 L. D., 274.

General Reclamation Circular, approved May 18, 1916, 45 L. D., 385, superseding General Reclamation Circular, approved February 6, 1913, 42 L. D., 349.

(B) FIRST-FORM WITHDRAWALS.

General effect of withdrawals.—Withdrawals made by the Secretary of the Interior under the first form of lands which are required for irrigation works have the force of legislative withdrawals and are effective to withdraw from other disposition all lands within the designated limits to which a right has not vested. Secretary's Instructions of January 13, 1904, 32 L. D., 387.

Discretion of the Secretary.—The discretion of the Secretary of the Interior in making first-form withdrawals of lands can not be questioned, and no application to enter can be allowed on the ground that the land is not needed. Ernest Woodcock, 38 L. D., 349.

Homestead entries.—An application to make homestead entry for land embraced within a first-form withdrawal should not be allowed nor received and suspended to await the possible restoration of the lands to entry, but should be rejected. Ernest Woodcock, 38 L. D., 349.

Reservoirs for domestic purposes.—The Secretary of the Interior has no authority under this act to withdraw lands for reservoir sites with a view to the use of the waters impounded therein for domestic

purposes. Opinion Assistant Attorney General, 33 L. D., 415.

Railroad rights of way.—No such right is acquired by virtue of an application for right of way for a railroad under the act of March 3, 1875 (18 Stat., 482), before the approval thereof, and prior to the construction of the road, as will prevent the Secretary of the Interior withdrawing the lands covered thereby for use as a reservoir under the act of June 17, 1902 (32 Stat., 388). Opinion Assistant Attorney General, 32 L. D., 597.

Uncompleted claims within withdrawals.—Where homestead or desert-land entries are included within first-form reclamation withdrawals, they should not be suspended, but allowed to proceed to final proof, certificate, and patent, and the land, if thereafter needed by the United States for reclamation purposes, reacquired by purchase or condemnation. Secretary's Instructions of August 26, 1914, 43 L. D., 374, overruling Opinion Assistant Attorney General, 34 L. D., 421, and Agnes C. Pieper, 35 L. D., 459.

Forest reserve lands.—Under the act of February 15, 1901 (31 Stat., 790), lands in forest reserves created under authority of the act of March 3, 1891 (26 Stat., 1095), may be appropriated and used for irrigation works constructed under authority of the act of June 17, 1902 (32 Stat., 388), as well as for works constructed by individuals. Opinion Assistant Attorney General, 33 L. D., 389.

Reclamation withdrawals within the national forests are dominant, but until needed by the Reclamation Service the lands will remain for administrative and protection purposes under control and direction of the Forest Service. Departmental Decision, February 27, 1909.

While the Secretary of the Interior may determine what lands within national forests withdrawn for reclamation purposes are necessary for the proper protection of reservoirs constructed under the reclamation act, he has no power to lease such lands, since authority in that regard is specifically granted to the Secretary of Agriculture. But in recognition of the needs of the Reclamation Service and to forestall any contracts detrimental to a

reclamation project, all leases should be subject to the prior approval of the Secretary of the Interior. Opinion Acting Attorney General John W. Davis, November 28, 1916.

Mineral lands.—The right of the Government to appropriate public land for use in the construction and operation of irrigation works under the act of June 17, 1902 (32 Stat., 388), is not affected by the fact that the land is mineral in character. Secretary's Instructions of October 6, 1906, 35 L. D., 216. *Loney v. Scott*, 57 Or., 378; 112 Pac., 172.

A mining claim as to which the claimant was in default in the performance of annual assessment work at the date of a withdrawal for the construction of irrigation works under the reclamation act does not except the land from the force and effect of the withdrawal. *Mrs. E. C. Kinney*, 44 L. D., 580.

Utah Indian lands.—Where, under the act of March 3, 1905 (33 Stat., 1069), lands of the Uintah Indian Reservation have been set apart and reserved as a reservoir site for general agricultural development and subsequently have been withdrawn, under section 3 of the reclamation act, from all forms of sale and entry, the United States is liable upon an implied contract to the Indians of said reservation for the occupancy and use of said lands to the extent that the use made of them is inconsistent with the rights of the Indians to use and occupy them or leave them open to sale and entry for their benefit, and the reclamation fund is applicable to the payment thereof. 14 Comp. Dec., 49.

Rights of successful contestants.—A successful contestant can not be permitted to make entry in exercise of his preference right while the lands he seeks to enter are embraced in a first-form withdrawal under the reclamation act; but under the regulations of August 24, 1912, 41 L. D., 171, and September 4, 1912, 41 L. D., 241, he may exercise that right at any time within 30 days from notice that the lands involved have been released from withdrawal and made subject to entry. *John T. Slaton*, 43 L. D., 212.

Where after the initiation of a contest against a homestead entry the lands are included within a first-form withdrawal under the reclamation act, but are subsequently relieved from the withdrawal and restored to entry, the contestant, upon the successful termination of the contest subsequent to the order of restoration, is entitled to exercise his preference right of entry for the land. *Edwards v. Bodkin*, 42 L. D., 172.

Rights of settlers upon unsurveyed public land.—The reclamation act contains no provision for the recognition or protection of any right of a settler on unsurveyed public lands which may be withdrawn and reserved thereunder for use in the construction of irrigation works, nor is there any such provision in the act of June 27, 1906 (34 Stat., 519), or other statute of the United States, and such settler has no right which he can oppose to the taking of the land for such purpose. *United States v. Hanson*, 167 Fed., 881; 93 C. C. A., 371.

Pasture for animals.—The reclamation act authorizes the withdrawal of public lands from entry to provide pasture for Government animals used in carrying on operations under the act. Departmental Decision (Lower Yellowstone), March 21, 1910.

Gravel and rock.—Gravel and rock on lands withdrawn under the first form can not be removed except for project purposes. Departmental Decision (Huntley), July 21, 1916.

Leases.—The Secretary of the Interior may establish rules as to the use of withdrawn lands while not needed for the purpose for which they are reserved, and may lease them for grazing, the revenue going into the reclamation fund. *Clyde v. Cummings*, 35 Utah, 461; 101 Pac., 106.

Whenever it is reasonably necessary for the preservation of the buildings, works, and other property, or for the proper protection and efficiency of any reclamation project, or where special conditions make it advisable, first-form withdrawn or purchased lands may be leased to the highest bidder for a term to be decided upon by the Reclamation Commis-

sion as the conditions may arise. Reclamation Commission Decision (Docket No. 850), March 23, 1917.

See 32 L. D., 418, 34 L. D., 480, 39 L. D., 525, 14 Comp. Dec. 49-235, and notes under section 7 of this act.

(c) SECOND-FORM WITHDRAWALS.

No power to withhold disposition under homestead laws.—The Secretary of the Interior has no power to withhold lands withdrawn under the second form from disposition under the homestead laws pending sufficient progress in the construction of the works to assure a sufficiency of water for the irrigation of the land. Secretary's Instructions of July 12, 1904, 33 L. D., 104. But see sec. 5, act of June 25, 1910, 36 Stat., 835, as amended by act of February 18, 1911, 36 Stat., 917, and sec. 10, act of August 13, 1914, 38 Stat., 686.

Soldiers' additional entries.—By the provision that lands susceptible of irrigation under a project shall be withdrawn "from entry, except under the homestead laws," Congress intended to inhibit any mode of private appropriation of such lands except by such entry under the homestead laws as requires settlement, actual residence, improvement, and cultivation; hence such lands are not subject to soldiers' additional entry under section 2306, R. S. Cornelius J. MacNamara, 33 L. D., 520; William M. Woolbridge, 33 L. D., 525; Mary C. Sands, 34 L. D., 653.

An application to make soldiers' additional entry, although filed prior to the passage of the act and pending at the date of an order withdrawing the lands covered thereby under the provisions of said act, is not effective to except the lands from such withdrawal. Nancy C. Yapple, 34 L. D., 311.

Even though approved by the Commissioner of the General Land Office, an application to make soldiers' additional entry will not, prior to the allowance of entry thereon, prevent a withdrawal of the land covered thereby. Charles A. Guernsey, 34 L. D., 560.

Desert-land entries.—Lands withdrawn from entry, except under the home-

stead laws, in accordance with this act, are not, during the continuance of such withdrawal, subject to entry under the desert-land laws. James Page, 32 L. D., 536.

Exchange provisions of the act of June 4, 1897.—Lands withdrawn under the second form are not subject to selection under the exchange provisions of act of June 4, 1897 (30 Stat., 36). Santa Fe Pacific R. R. Co., 33 L. D., 360.

Mineral lands.—Lands valuable for mineral deposits and embraced within a withdrawal of lands susceptible of irrigation by means of a reclamation project are not thereby taken out of the operation of the mining laws, but continue open to exploration and purchase under such laws. Secretary's Instructions of October 6, 1906, 35 L. D., 216; *Loney v. Scott*, 57 Or., 378, 112 Pac., 172.

Withdrawals under the second form do not affect coal lands. Albert M. Crafts, 36 L. D., 138, overruling *John Hopkins*, 32 L. D., 560.

School section lands.—A settler on unsurveyed land in a school section who after survey and after withdrawal of the land under the reclamation act as susceptible of reclamation under an irrigation project was permitted to make entry for the full area of 160 acres, acquires rights by such settlement and entry which bar the attachment of any rights to the land on behalf of the State under its school grant. He must, however, conform his entry to a farm unit. Sarah E. Allen, 44 L. D., 381, modifying *Sarah E. Allen*, 40 L. D., 586, 589, and *William Boyle*, 38 L. D., 603.

Railroad rights of way.—Homesteaders without patents, but lawfully in possession of lands withdrawn for irrigation under a reclamation project, may grant rights of way over their settlements to a railroad company, and approval of the Secretary of the Interior is not required. *Minidoka, etc., R. Co. v. United States*, 235 U. S., 211, 59 U. S., L. ed., 200, 35 S. Ct., 46, reversing 190 Fed., 491 and affirming 176 Fed., 762. In this case the court said: "It has always been the policy of the Government to encourage the building of railroads in the Western States, and many land grants have been made by it

to aid in their construction. Congress has also provided a means by which these companies having any such grants could acquire rights of way over any portion of the public land by filing a map of definite location and securing its approval by the Secretary of the Interior: (18 Stat., 482, ch. 152.) This law, however, by its very terms, applies only to 'public lands,' and hence can not be construed to empower the Secretary to authorize the building of roads across land which had been segregated from the public domain by the entry and possession of homesteaders or preemptions. (*Bardon v. Northern P. R. Co.*, 145 U. S., 538, 36 L. ed., 809, 12S. Ct., 856; *United States v. Buchanan*, 232 U. S., 76, 58 L. ed., 514, 34 S. Ct., 237, and cases cited). On the other hand, settlers without patent were not in a position to make deeds to rights of way, not only because they had no title, but also because they were prohibited from alienating such lands before final proof. (Revised Statutes, section 2291.) The consequence was that neither the Government nor the homesteader could make such grant, and as the company could not build without an assured title to its right of way, it was practically impossible to construct railroads through territories which consisted partly of public lands and partly of that which was in the possession of settlers. But it was greatly to other interests and to that of the Government that such a highway should be constructed, and in order to meet the difficulty, Congress, on March 3, 1873 (17 Stat., 602, ch. 266, Revised Statutes, section 2288), passed an act providing that any bona fide settler might convey by warranty against his own act 'any part of his claim for church, school, and cemetery purposes and for a right of way for railroads.' Under this act the appellant could have constructed its road along the strip conveyed to it by the homesteader unless, as claimed by the Government, the provisions of Revised Statutes, section 2288, as amended (33 Stat., 991, ch. 1224), have been repealed as to lands within irrigation projects and the completed Minidoka irrigation works. Counsel for the United States contended that the reclamation act (32 Stat., 388,

ch. 1098), requires that when an irrigation project is undertaken the Secretary of the Interior shall define its limits and withdraw all the irrigable lands therein from the public domain and from the operation of the general land laws. It is argued that when thus withdrawn the irrigation area constitutes a unit in which the United States has such a special interest as to require that it shall be subject to the supervision of the Secretary—he, in order to secure the success of the undertaking, having it in his power to decide whether a railroad should be built, and if so, along what line and across what lands it should be constructed. It is also argued that settlers having no patents ought not to be in a position to grant a right of way over lands which they do not own and may never acquire and thereby impose a burden upon the claim if it should afterwards come into the hands of other homesteaders. These considerations, however, have not induced Congress to change its policy of encouraging the construction of railroads along routes designated by charters and over land in the possession of settlers. Neither have they induced Congress to confer upon the Secretary the power to grant rights of way through irrigation lands in the possession of homesteaders * * * Except as modified by the specific terms of the reclamation act such lands are distinctly made subject to entry under the provisions of the homestead law and all of the homesteader's rights therein are the same as if the settlement had been located outside of the limits of the irrigation works. One of the privileges, not affected by the reclamation act, is that which permits the homesteader, without patent, but in lawful possession, to grant to a railroad company a right of way across his claim; and whatever reason there was for conferring this right upon those who entered land in a sparsely settled section is doubly operative as to land located within more thickly populated reclamation areas. Manifestly this is true as to so much as may be needed for churches and schoolhouses. It is equally so as to rights of way for railroads and other public utilities needed by the numerous residents living within irrigation areas."

See *Minidoka, etc., R. Co. v. Weymouth*, 19 Idaho, 234, 113 Pac., 455.

Effect of filing farm-unit plats.—Where the Secretary of the Interior by approval of farm unit plats under the provisions of the act of June 17, 1902 (32 Stat., 388), heretofore or hereafter given, has determined, or may determine, that the lands designated thereon are irrigable, the filing of such plats in the office of the Commissioner of the General Land Office and in the local land offices shall be regarded as equivalent to an order withdrawing such lands under the second form under said act, and as an order changing to the second form any withdrawal of the first form then effective as to any such tracts. Order of July 13, 1908, 37 L. D., 27.

Effect upon entries of second withdrawal after revocation of first.—All entries of lands withdrawn under the act are subject to the conditions imposed by section 3 thereof, and a revocation of the withdrawal operates to remove those conditions and leaves the entries in the same situation as entries made prior to the withdrawal, and such conditions can not, by force of a second withdrawal, be reimposed upon such of the entries made during the period of the first withdrawal as had not been perfected at the date of the second withdrawal. Opinion Assistant Attorney General, 34 L. D., 445.

2. RESTORATION AND ENTRY.

See General Land Office Instructions, June 12, 1914, governing restoration of withdrawn lands, 43 L. D., 274.

Limit of area of entry.—The Secretary of the Interior is empowered to fix the limit of area for each homestead entry under the same project according to the quality and character of the land with reference to its productive value; but all entries must be of contiguous tracts and of not less than 40 nor more than 160 acres. Secretary's Instructions, August 21, 1903, 32 L. D., 237.

Rule of approximation.—Rule applied to reclamation homestead entries coming within the provisions of the reclamation act, that when the excess area in an entry above 160 acres is less than the deficiency would be if the smallest subdivision were

excluded, it may be included in the entry; where it is greater it must be excluded. General Land Office Instructions of March 30, 1910, 38 L. D., 513.

Entries must be by legal subdivisions.—All entries must be made according to the ordinary legal subdivisions, and the Secretary of the Interior has no authority to allow an entry for less than 40 acres, nor to subdivide a 40-acre tract for combination with other subdivisions. Secretary's Instructions, August 21, 1903, 32 L. D., 237.

Uniformity of area not required.—The Secretary of the Interior may require that homestead entries shall comprise certain specified tracts, selected with reference to soil and water supply, whether the areas of the entries are uniform or not. Secretary's Instructions, August 21, 1903, 32 L. D., 237.

All entries subject to reduction to farm unit.—Every entry of lands within the limits of a withdrawal under the act is subject to reduction to a farm unit as thereafter established by the Secretary of the Interior, and improvements placed upon the different subdivisions by the entryman prior to such reduction are at his risk. *Jerome M. Higman*, 37 L. D., 718.

Farm units not confined to limits of entry.—In subdividing such an entry the Secretary of the Interior is not required to confine the farm units to the limits of the entry, but may combine any legal subdivision thereof with a contiguous tract or tracts lying outside of the entry so as to equalize in value the several farm units. *Jerome M. Higman*, 37 L. D., 718.

Settlement upon farm unit.—Settlement upon any portion of a farm unit entitles the settler to claim, by virtue of such settlement, only lands contained in that farm unit. *McDonald v. Rizor*, 42 L. D., 554.

Additional entries.—The right of additional homestead entry granted by section 6 of the act of March 2, 1889 (25 Stat., 854), can not be exercised upon lands within a reclamation project. *Gjerluf Hanson*, 40 L. D., 234.

An entry of lands subject to the provisions of the reclamation act will not be allowed as additional to a prior entry subject only to the provisions of the gen-

eral homestead law. Charles O. Hanna, 36 L. D., 449.

The fact that lands are within a reclamation withdrawal does not prevent additional entry thereof under section 2, act of April 28, 1904 (33 Stat., 527), where farm units have not been established and where the original entry, to which the additional must be contiguous, was made subject to the restrictions and conditions of the reclamation act, the combined original and additional entry, however, being subject to adjustment to a farm unit when established. Henry W. Williamson, 38 L. D., 233.

Aggregate area of public land.—A homestead entry of a farm unit within a reclamation project, regardless of the area embraced therein, is the equivalent of a homestead entry for 160 acres outside of a project; but in fixing the area that should be charged against the entryman by reason of such entry, under the provision in the act of August 30, 1890 (26 Stat., 371), that not more than 320 acres in the aggregate may be acquired by any one person under the agricultural public-land laws, the reclamation entry should be taken into account at its actual area and not charged as 160 acres. Henry C. Taylor, 42 L. D., 319.

Homestead entry partly within and partly without reclamation project.—Where a portion of a homestead entry made subject to the provisions of the reclamation act is subsequently eliminated from the project, and the portion remaining within the project is designated as a farm unit, the entryman may retain either the farm unit or the portion lying without the limits of the project, at his election, and the entry will be canceled as to the remainder. Laurel L. Shell, 39 L. D., 502.

In view of the equities in this particular case, direction is given that if the entryman so desires the portion of the entry eliminated from the project may be again brought thereunder and added to the farm unit with a view to permitting him to complete entry for the entire tract. *Idem.*

Descent and sale of homestead entryman's rights.—Upon the death of a homesteader having an entry within an irrigation project, leaving a widow, and only minor heirs, his right may, under section 2292, Revised Statutes, be sold for the benefit of such heirs. Heirs of Frederic C. De Long, 36 L. D., 332.

If in such case the land has been subdivided into farm units, the purchaser takes title to the particular unit to which the entry has been limited; but if subdivision has not been made, he will acquire an interest in only the land which would have been allotted to the entryman as his farm unit; in either case taking subject to the payment of the charges authorized by the reclamation act and regulations thereunder and free from all requirements as to residence and cultivation. *Idem.*

Desert entryman may adopt one of two courses.—A desert entryman whose land is included within a reclamation project may elect to proceed with the reclamation thereof on his own account, and thus acquire title to all, or so much of, the land included within his entry as he can secure water to irrigate, or accept the conditions of the reclamation act and acquire title thereunder to 160 acres; but he can not avail himself of both the reclamation project and other means of reclamation and thus acquire title to more than 160 acres of land. Robert J. Slater, 39 L. D., 380.

Contract to convey to water users' association.—A homesteader whose entry is within the irrigable area of an irrigation project, but not subject to the restrictions, limitations, and conditions of the act, can not under the law, prior to the acquisition of title to the land, enter into an agreement to convey to a water users' association any portion of the land embraced in his entry, to be held in trust and sold for the benefit of the homesteader to persons competent to make entry of such lands. Opinion Assistant Attorney General, March 29, 1906, 34 L. D., 532.

Sec. 4. [Contracts for construction—Notice of irrigible lands, limit of area, charges per acre, and method of payment—Limit of work hours—Mongolian labor.] That upon the determination by the Secretary of the Interior that any irrigation project is practicable, he may cause to be let contracts for the construction of the same, in such portions or sections as it may be practicable to construct and complete as parts of the whole project, providing the necessary funds, for such portions or sections are available in the reclamation fund, and thereupon he shall give public notice of the lands irrigable under such project, and limit of area per entry, which limit shall represent the acreage which, in the opinion of the Secretary, may be reasonably required for the support of a family upon the lands in question; also of the charges which shall be made per acre upon the said entries, and upon lands in private ownership which may be irrigated by the waters of the said irrigation project, and the number of annual installments, not exceeding ten, in which such charges shall be paid and the time when such payments shall commence. The said charges shall be determined with a view of returning to the reclamation fund the estimated cost of construction of the project, and shall be apportioned equitably: *Provided*, That in all construction work eight hours shall constitute a day's work, and no Mongolian labor shall be employed thereon. [32 Stat., 339.]

See act of August 13, 1914, 38 Stat., 686, amending this section as to instalments of charges.

Construction.—Under the authority conferred upon the Secretary by the act he may, in his discretion, enter into contracts for the construction of irrigation works or construct such works by labor employed and operated under the superintendence and direction of Government officials. Opinion Assistant Attorney General, April 16, 1906, 34 L. D., 567.

During the construction of a Government project the temporary use of the canals of an irrigation system purchased by the Government for conveying to lands water that would otherwise be allowed to go to waste, is not incompatible with the purpose, but is directly in pursuance of the object for which the prop-

erty was acquired. Department Decision, December 6, 1906.

The act of June 17, 1902 (32 Stat., 388), gives the Secretary of the Interior authority to let contracts for the construction of reclamation works only when "the necessary funds * * * are available in the reclamation fund," and if these funds are not available and sufficient, no such authority exists. 27 Op. Atty. Gen., 590.

Contracts by engineers of the Reclamation Service, acting for and on behalf of the United States, with water users or water users' associations or with representative committees of settlers to advance certain moneys and perform work in the construction of irrigation works, certificates to be issued therefor redeemable at face value in part of full payment of the charges against the lands of the

holders of the certificates, are unauthorized by the act of June 17, 1902 (32 Stat., 388), and the Secretary of the Interior has no authority to enter into such contracts. 27 Op. Atty. Gen., 360.

There is no statute authorizing the Secretary of the Interior to enter into contracts contemplating a cooperative plan whereby the United States enters into an agreement with a water users' association, by which the association undertakes to perform certain work within certain maximum prices, the work to become the property of the United States upon acceptance, payment therefor to be made by the association in certificates of work performed, which certificates are to be accepted by the United States in reduction of charges against particular tracts, as an equitable apportionment thereof. 27 Op. Atty. Gen., 590.

The act of February 4, 1887 (24 Stat., 379), to regulate commerce, is not violated by a reduction in freight rates, authorized by section 22 of that act, amended March 2, 1889 (25 Stat., 862), on materials and machinery used by the United States, or by parties contracting with them for work upon irrigation systems under construction in the arid regions of the West, provided the Government receives the whole benefit of the reduced rate or concession; but it is violated if the contractor receives any portion of such benefit. 25 Op. Atty. Gen., 408.

There is no provision in the act to regulate commerce (act of February 4, 1887, 24 Stat., 379), or in its various amendments, which justifies the granting of reduced rates by railroads to employees of the Reclamation Service and dependent members of their families and servants accompanying them, and laborers destined for work in that service. If railroads accord these reduced rates, they will be obliged to grant the same rates to the public in general in order to avoid a violation of section 2 of the act of June 29, 1906 (34 Stat., 584, 587). 26 Op. Atty. Gen., 47.

Where a steam shovel with operators is loaned by a railroad company to the Reclamation Service, such operators are employees of the company and not of the United States. Comp. Dec., in re South-

ern Pacific Railroad Co., October 20, 1915.

For regulations as to commencement of construction work before the necessary rights over the property required for such construction have been secured, see Departmental Decision, January 30, 1912 (Grand Valley).

See notes under section 2 of this act.

Lands affected.—The act contemplates the irrigation of private lands as well as lands belonging to the Government, and the fact that a scheme contemplates the irrigation of private as well as a large tract of Government land does not render the project illegal, so as to prevent the condemnation of land necessary to carry it out. *Burley v. United States*, 179 Fed., 1, 102 C. C. A., 429, 33 L. R. A. (U. S.), 807, affirming 172 Fed., 615.

No deduction from the irrigable area subject to water charges will be made on account of easements for highways or irrigating ditches. *Williston Land Co.*, 39 L. D., 2. But see Reclamation Circular Letter No. 569, July 11, 1916.

Individual owners of lands acquired under the provisions of the Carey Act may be supplied with such additional water from reservoirs constructed under the reclamation act as may be necessary to fully develop and reclaim the irrigable portions of such lands, subject to all the conditions governing the right to the use of water under any particular project. Opinion Assistant Attorney General, October 11, 1906, 35 L. D., 222.

Persons holding contracts to purchase lands from a State, on deferred payments, no conveyance of title to be made to the purchasers until full payment, are entitled, if not in default and their contracts are in good standing, to subscribe for and purchase water rights under the reclamation act for irrigation of such lands, subject to the provisions and limitations of that act. Secretary's Instructions, September 11, 1911, 40 L. D., 270.

Lands held by virtue of a desert-land entry are held in private ownership within the meaning of the act, and the entryman or his assignee is entitled to the same rights and privileges and is subject to the same conditions and limitations, so far as

right to the use of water is concerned, as any other owner of lands within the irrigable area of an irrigation project. Secretary's Instructions, July 14, 1905, 34 L. D., 29. See act of June 27, 1906, 34 Stat., 519.

Where the irrigable area of a legal subdivision embraced in an entry within a reclamation project is shown on the duly approved farm-unit plat to be greater than the entire area of such legal subdivision shown on the prior township plat, applications for water rights and payments therefor should be made on the basis of the actual irrigable area, and not on the basis of the acreage shown on the township plat. J. E. Enman, 40 L. D., 600.

Agencies of a State government are entitled to become takers of water under a reclamation project for the lands benefited. Departmental Decision, May 12, 1909.

The Reclamation Service can not, while construction of a project is in progress, and prior to the laying out of its canals, undertake to reexamine, at the instance of individual claimants, particular tracts falling within the project, to ascertain whether or not such tracts are capable of service from its projected canals. Lewis Wilson, 42 L. D., 8.

Water charges.—An applicant for water rights under a reclamation project is required to pay for water for the entire irrigable area of his entry as shown on the plat upon which the construction charges were apportioned; and where mistake in the plat is alleged as to the irrigable area of the entry, application for correction thereof should be made to the local officer of the Reclamation Service. Williston Land Co., 39 L. D., 2. But see Regulations for Minidoka project, approved March 6, 1916.

There is nothing in the act to prohibit a graduated scale of the annual payments required of users of water from projects constructed thereunder, and in all cases where it is deemed advisable this plan of payment may be adopted. Secretary's Instructions, August 16, 1905, 34 L. D., 78.

The relinquishment of a homestead entry within the irrigable area of an irrigation project, where the entryman is in default in the payment of any annual in-

stallment, does not relieve the land of such charge, and a succeeding entryman takes it subject thereto. Secretary's Instructions, July 16, 1906, 35 L. D., 29.

The Secretary of the Interior has authority to levy and collect assessments on lands irrigated from any irrigation works to defray the cost of maintaining such works until the time when under the act the maintenance and operation passes to the landowners. *Baker v. Swigart*, 196 Fed., 569, reversed 199 Fed., 865, 118 C. C. A., 313, affirmed 229 U. S., 187, 57 L. Ed., 1143, 33 Sup. Ct., 645.

The purpose of this act is to encourage the settlement and cultivation of public lands, and it contemplates that such lands may be entered on as soon as the irrigation system is so far completed that water may be furnished thereon for irrigation purposes; and when the act empowers the Secretary of the Interior to fix and determine the charges against the land, it must have intended that he should cover the cost of maintenance and operation while in control of the United States as well as construction. *United States v. Cantrall*, 176 Fed., 949.

Water can not be furnished from a reclamation project to a State experiment farm free of charge. Departmental Decision, in re Idaho State Experiment Farm, September 15, 1909.

When the Secretary of the Interior has fixed the number of instalments to be paid for a water right and the time of payment, he is without authority to suspend payment of same in case the alkali has risen to the surface of the soil and interfered with the crop returns from the land. Departmental Decision, in re Sam Hammond (Truckee-Carson), September 24, 1909.

See Regulations of the Secretary, August 11, 1915, governing extension of relief to water users whose lands are temporarily affected by seepage, alkali, etc., to such an extent as to render them impracticable of profitable cultivation.

Where after entry of a farm unit within a reclamation project the farm-unit plat is amended and the entryman in conforming his entry to the amended plat retains only part of the land originally

entered, he is entitled to have the payments theretofore made on account of building charges and on account of the Indian price for the land credited to the retained portion, but is not entitled to have the payments on account of operation and maintenance so credited. Eugene F. Windecker, 41 L. D., 389.

Where after application for water right for the irrigable area of a farm unit, under the terms and for the acreage fixed in the published notice, a second notice is given showing an increased irrigable area in the farm unit and fixing a different rate per acre, the applicant is entitled to complete payment for the area originally fixed at the rate specified in the first notice, but as to water right for the additional irrigable acreage shown by the second notice, he will be required to pay at the rate fixed in the latter notice. Walter L. Minor, 39 L. D., 351.

A successful contestant of an entry within a reclamation project will be required, in making entry in exercise of his preference right, to pay the building charge obtaining at the time his application is filed, and is not entitled to the rate in effect when the former entry was made nor to credit for the payments made by the former entryman. Henry A. Schroeder, 40 L. D., 458.

Limit of acreage.—A successful contestant in exercising his preference right of entry upon lands within a reclamation project is limited to one farm unit, although such unit may embrace less than the area covered by the entry he contested. Joseph F. Gladieux, 41 L. D., 286.

Congress is without power to control or regulate the sale or acreage of lands in private ownership within reclamation projects; but, so long as the projects are under Government control, may determine the acreage for which water may be supplied through such projects to any one landowner. Amaziah Johnson, 42 L. D., 542.

Where an entryman of lands within a reclamation project fails, after notice, to conform his entry to an established farm unit, the Secretary of the Interior has the power to so conform the entry. Mangus Mickelson, 43 L. D., 210.

Water-right applications.—The provision in the form for water-right application by private landowner requiring applicant to agree to grant and convey to the United States, or its successors, all necessary rights of way for ditches, canals, etc., for or in connection with the project, is a proper requirement warranted by the spirit and intent of the reclamation act, and an applicant for water right will be required to conform thereto as a condition to allowance of his application. C. M. Kirkpatrick, 42 L. D., 547.

The provision in the form for water-right application by private landowner requiring him to bind himself not to convey the land voluntarily to any person not qualified under the reclamation law to purchase a water right, upon condition that the application and any "freehold interest" sought to be conveyed shall be subject to forfeiture, is a reasonable and proper requirement, and an application from which such provision has been eliminated will not be accepted.

Idem.

The provision in the form of water-right application by private landowner requiring applicant to agree that the United States, or its successors, shall have full control over all ditches, gates, or other structures owned or controlled by applicant and which are necessary for the delivery of water, is in accordance with departmental regulations, and being a necessary incident to the proper management and operation of the project by the United States or its successors, is impliedly authorized by the reclamation act, and a water-right applicant will be required to conform thereto. *Idem.*

The provision in forms for the water-right applications requiring payment by applicant of "betterment" or maintenance charges is a proper requirement under the reclamation laws, and the fact that at the time entry was made there was no specific mention of "betterment" charges in the water-right application forms then in use will not relieve the entryman from payment of betterment charges legally assessed against his land. *Idem.*

—**By corporations.**—No applications will be received from corporations on reclamation projects. That Congress did not intend that the reclaimed lands upon which the Government is expending the money of all the people should be the subject of corporate contract is conclusively established by the fact that the Secretary is authorized to fix the farm unit on the basis of the amount of land that will support a family. These lands are to be the homes of families. But existing corporations to which water rights have heretofore been granted should be permitted to continue without interference, and in view of past departmental decisions applications by corporations pending at this date may be allowed. Departmental Decision July 11, 1913, 42 L. D., 250. Pleasant Valley Farm Co., 42 L. D., 253.

Religious, educational, charitable, and eleemosynary corporations are excepted from the decision of July 11, 1913. Departmental Decision, December 5, 1916.

If an individual owns land for which he makes water-right application duly accepted by the United States and the land is later in good faith transferred to a corporation, the corporate owner is entitled thereafter to the same treatment as other land owners on a project. Departmental Decision, in re The Santaquin Lime and Quarry Co. (Truckee-Carson) December 6, 1916.

Entrymen required to take water service and pay charges.—It is not optional with an entryman of lands within a reclamation project to take or refuse water service from the project; but he is compelled to take the water service and to pay the charges fixed therefor. Mangus Mickelson, 43 L. D., 210.

Return of cost of project.—In case the actual cost of a reclamation project exceeds the estimated cost of construction, it is the duty of the Secretary of the Interior to revise the estimate and make the charges sufficient to reimburse the reclamation fund for the cost of construction. Mangus Mickelson, 43 L. D., 210.

Different construction charges.—The reclamation act provides that the cost of the project shall be imposed upon the land benefited equitably, which is to say ratably. No authority exists in the recla-

mation act, either in express terms or by necessary implication, that some of the lands benefited might be required to contribute one sum and other lands a greater or less sum, for such rule of apportionment would be inequitable and not ratable. Opinion Assistant Attorney General, October 25, 1916, in re Prosser Falls L. & P. Co. (Yakima); Departmental Decision, February 2, 1909, 37 L. D., 428. But see Opinion Attorney General Wickersham, May 1, 1911 (Lower Yellowstone), with accompanying papers, in effect to the contrary.

Water may be rented.—Water in irrigation canals constructed and operated under the reclamation act, which has not become appurtenant to any land and is not needed for irrigation, may be temporarily disposed of by lease, in the discretion of the Secretary of the Interior, the proceeds to become a part of the reclamation fund. Alhambra Brick and Tile Co., 40 L. D., 573. See act of February 21, 1911, 36 Stat., 925.

As an emergency measure to save growing crops, the director is authorized to supply squatters upon withdrawn lands under the reclamation projects with water on a rental basis, pending decision as to their rights to the land, subject to the provision that water shall be furnished only to such settlers as file a certain designated application therefor. Departmental Decision, May 27, 1912.

Lands too alkaline to produce profitable crops may be supplied with water for a nominal rental, in order to encourage washing the alkali from the soil. Departmental Decision, March 24, 1913.

Eight-hour day.—There is no conflict between the declaration in section 4, that eight hours shall constitute a day's work upon the public works therein specified, and the saving clause in section 1 of the act of August 1, 1892 (27 Stat., 340), which allows more than eight hours work in one calendar day "in case of extraordinary emergency." Irrigation works for the reclamation of arid and semiarid lands, act of June 17, 1902, perfectly and comprehensively fill the idea of "public works of the United States." The eight-hour law contemplated by the act of August 1, 1892, means eight hours

of effective labor. The blasting, cleaning of tracks, repair of machinery, and all other similar matters incident to the reclamation work, essential to prompt and continuous service in the regular day, may legally be done before and after regular hours. The law does not prescribe in what hours of the day the labor shall be done. Blacksmiths and their helpers, firemen, and pump men are either mechanics or laborers within the meaning of the eight-hour law. *Quære*, as to the status of teamsters, cooks, and flunkies. It is the duty of the engineers of the Reclamation Service to see that the eight-hour law is observed by the contractors and to report violations of that law. 26 Op. Atty. Gen., 64.

The eight-hour law of June 19, 1912 (37 Stat., 137), which provides for a penalty of \$5 per day for each laborer working in excess of eight hours upon construction contracts or materials under special specifications, the same to be deducted from the monthly estimates of the contractor, is effective in regard to work of the Reclamation Service since the service was put upon an annual appropriation basis by the act of August 13, 1914. (38 Stat., 686.) Prior to that time the act did not apply to the work of the Reclamation Service. Comp. Dec., June 8, 1915.

State laws affecting labor do not apply to the Reclamation Service. Departmental Decision, July 31, 1915.

Reclamation contracts to be filed in returns office.—The reclamation act requires that all moneys received from any source in an irrigation project shall be paid into the reclamation fund. All charges are determined with the view of returning to the reclamation fund the cost of the construction of each project so that the moneys can be used for other irrigation works. It is certainly within the policy of the statute that all the contracts pertaining to irrigation projects should be recorded in the Interior Department in order that the condition of the projects and of the reclamation fund may be readily ascertained. Contracts authorized by the Secretary of the Interior, which were entered into between an acting supervising engineer in the United States Reclamation Service and

certain users of water furnished for irrigation purposes by the Reclamation Service are within the purview of section 3744, Revised Statutes, and copies thereof should be filed in the returns office of the Department of the Interior by the officer making and signing the same. 28 Op. Atty. Gen., 66.

—Must contain "Member of Congress" clause.—Agreements for the purchase of lands, for water rentals, for conveyance of water rights, and similar instruments, contractual in form, relating to the adjustment of vested water rights, executed in behalf of the United States by some officer of the Reclamation Service for the purposes within the purview of the reclamation act (32 Stat., 388), are "agreements" or "contracts" within the meaning of sections 3739-3742, Revised Statutes, which prohibit any Member of Congress from being a party to, or interested in, any contract with, or on behalf of, the United States which is in its nature executory and continuous as to future performance, and require the insertion therein of the condition prescribed by section 3941. 26 Op. Atty. Gen., 537.

Miscellaneous references.—General Land Office Circulars, regarding applications for water rights, April 4, 1906, 34 L. D., 544; March 22, 1909, 37 L. D., 521; and April 20, 1909, 37 L. D., 581.

General Land Office Instructions of January 18, 1908, to registers and receivers in reference to this section, 36 L. D., 256.

Secretary's Regulations in reference to water-right charges, of May 27, 1908, and July 8, 1908, 37 L. D., 11-16, supplemented by regulations of April 8, 1911, 40 L. D., 15.

Secretary's Instructions as to forms for water-right applications, etc., September 9, 1910, 39 L. D., 197; January 30, 1911, 39 L. D., 532; and June 16, 1911, 40 L. D., 139.

Secretary's Order of February 26, 1913, 42 L. D., 203, and Public Notice of June 23, 1913, 42 L. D., 201, regarding collection of operation and maintenance charges as affected by case of *Swigart v. Baker*, ante.

Sections 100-115, inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

Sec. 5. [Requirements of entrymen—Limit of 160 acres—Residence—Payments—Disposal of receipts—Commissions.] That the entryman upon lands to be irrigated by such works shall, in addition to compliance with the homestead laws, reclaim at least one-half of the total irrigable area of his entry for agricultural purposes, and before receiving patent for the lands covered by his entry shall pay to the Government the charges apportioned against such tract, as provided in section four. No right to the use of water for land in private ownership shall be sold for a tract exceeding one hundred and sixty acres to any one landowner, and no such sale shall be made to any landowner unless he be an actual bona fide resident on such land, or occupant thereof residing in the neighborhood of said land, and no such right shall permanently attach until all payments therefor are made. The annual installments shall be paid to the receiver of the local land office of the district in which the land is situated, and a failure to make any two payments when due shall render the entry subject to cancellation, with the forfeiture of all rights under this act, as well as of any moneys already paid thereon. All moneys received from the above sources shall be paid into the reclamation fund. Registers and receivers shall be allowed the usual commissions on all moneys paid for lands entered under this act. [32 Stat., 389.]

See act of August 9, 1912, 37 Stat., 265, amending this section in reference to payments, etc.

See notes under section 4 of this act.

Homestead requirements. — Persons making homestead entry of lands within the irrigable area of any project commenced or contemplated under the act, will be required to comply fully with the requirements of the homestead law as to residence, cultivation, and improvement; and failure to supply water from such works in time for use upon the land entered will not justify a failure to comply with the law and to make proof thereof within the time required by the statute. Secretary's Instructions (Minidoka) May 17, 1904, 32 L. D., 633. See act of June 25, 1910, 36 Stat., 864.

There is no authority for granting a leave of absence to a homesteader who

made entry of lands believed to be susceptible of irrigation under a contemplated project, on the ground that he can raise no crops on the land in its present arid state and that it is impossible to procure water for the irrigation thereof prior to completion of the project. Jacob Fist, 33 L. D., 257. See act of June 25, 1910, 36 Stat., 864.

The provisions of the three-year homestead act of June 6, 1912, 37 Stat., 123, respecting cultivation, have no application to entries made under the reclamation act; but the reclamation laws require, as a prerequisite to the issuance of final certificate and patent, that the entryman shall have reclaimed, for agricultural purposes, at least one-half of the total irrigable area of his entry and paid all reclamation charges at that time due. Wilbur Mills, 42 L. D., 534.

The provisions of the three-year homestead law respecting cultivation do not apply to entries made subject to the reclamation act. *Rose Voita*, 43 L. D., 436.

Limit of acreage.—The provision of this section, restricting the sale of a right to use water for land in private ownership to not more than 160 acres, will not prevent the recognition of a vested water right for a larger area, and protection of the same by allowing the continued flowage of the water covered by the right through the works constructed by the Government. *Opinion Assistant Attorney General*, 34 L. D., 351; *Anna M. Wright*, 40 L. D., 116.

A qualified water-right applicant, may, after having disposed of a previously acquired water right, make another application, and as to the latter, may be considered in the position of an original applicant. A landowner may be the purchaser of the right to the use of water for separate tracts at the same time, provided he can properly qualify and the tracts involved do not exceed 160 acres in the aggregate. *Departmental Decision*, in re *Wm. B. Bridgman* (*Sunnyside*), November 20, 1909.

A person who holds a farm unit shall not be permitted, before full payment has been made on the appurtenant water right, to acquire other lands with appurtenant water rights unless the water-right charges on the latter have been fully paid. A person may hold private lands with appurtenant water rights up to the limit of single ownership fixed for the project in one or more parcels before full payment of the water-right charge, but may not acquire other lands with appurtenant water rights unless the water-right charges thereon have been paid in full. The limit of area of the farm units and of single private-land holdings to which water rights are appurtenant, and as to which water-right charges have not been paid in full, shall in no case exceed 160 acres. *Departmental Decision*, July 22, 1914, 43 L. D., 339. See act of August 9, 1912 (37 Stat., 265), and notes thereunder.

The fact that a widow who under section 2291, Revised Statutes, succeeds to

the right of her husband in an unperfected homestead entry within a reclamation project has previously secured water from the project for reclamation of land held by her in private ownership in no wise affects her right to acquire water under the project for completion of such entry under the reclamation act. *Anna M. Wright*, 40 L. D., 116.

Residence and occupancy.—Where a tract of land under a reclamation project is owned by two or more persons jointly, unless each is a "resident" or an occupant on the land, no right to use water to irrigate the same can be acquired under this section. *Departmental Decision*, January 12, 1910.

To entitle an applicant for the use of water for lands held in private ownership within the irrigable area of an irrigation project under this act, to the benefits of the act, he must hold the title in good faith, and his occupancy must be *bona fide* and in his own individual right. *Secretary's Instructions*, May 21, 1904, 32 L. D., 647.

The residence requirements provided for in this section apply to all persons acquiring by assignment water-right contracts with the United States, unless prior to such assignment the final water-right certificate contemplated by section 1 of the act of August 9, 1912 (37 Stat., 265), has been issued, in which event the land may be freely alienated, subject to the lien of the United States. *H. G. Colton*, 43 L. D., 518.

The residence requirement of this section in reference to private lands is fully complied with if at the time the water-right application is made the applicant is a *bona fide* resident upon the land or within the neighborhood. After approval of the application further residence is not required of such applicant, and final proof may therefore be made under the act of August 9, 1912 (37 Stat., 265), without the necessity of proving residence at the time proof is offered. *Departmental Decision*, April 19, 1916.

The term "in the neighborhood" held to mean within 50 miles. *Departmental Decision*, January 20, 1909.

Failure to pay water charges.—The provision in section 5 of the reclamation act that failure to make payment of any two annual installments when due shall render the entry subject to cancellation, with forfeiture of all rights under the act, is not mandatory, but it rests in the sound discretion of the Secretary of the Interior whether the entryman in such case may thereafter be permitted to cure his default by payment of the water charges, where he has continued to comply with the provisions of the homestead law; and in event an entry has been canceled for such failure, the Secretary may, in the absence of adverse claim, authorize reinstatement thereof with a view to permitting the entryman to cure his default. *Marquis D. Linsea*, 41 L. D., 86.

Where entries and water-right applications have been held for cancellation for failure to pay the building charges, pending final action, water may be furnished for the land upon proffer of the portion of the instalments for operation and maintenance. Departmental Decision, February 9, 1909.

No power exists in the Secretary of the Interior to formally grant specific extension of time for payment of overdue water-right charges. Departmental Decision, April 22, 1909.

See Secretary's Regulations of February 27, 1909, regarding delinquent payments, 37 L. D., 468.

Parties to suit enjoining collection of water charges.—A corporation with which as the representative of its shareholders, who are parties accepted by the United States as holders of water rights in a project under the reclamation act, the United States makes a contract for the benefit of such shareholders relative to the supply of water due and the dues to be paid by the shareholders and which covenants in the contract to collect dues for the United States and guarantees the payment thereof, is the proper party plaintiff in a suit to enjoin officers of the United States from collecting unlawful charges from the shareholders, turning the water from their lands, and canceling their water rights and homestead rights because they fail to pay such charges.

Magruder et al v. Belle Fourche Valley Water Users' Association, 219 Fed., 72, 138 C. C. A., 524.

Water right is appurtenant to the land.—Upon the issuance of a water-right certificate the right evidenced thereby becomes appurtenant to the land, subject to forfeiture for failure to pay the annual installments at the time and in the manner prescribed by law and the regulations, and a subsequent purchaser of the land succeeds to the rights and status of the original owner, subject to the same charges and conditions. *Fleming McLean*, 39 L. D., 580.

Release of nonirrigable lands from stock subscription.—The director is authorized to assent to the release from stock subscription of any and all lands in any and all projects heretofore or hereafter shown by official survey or by the original or amended farm unit plats to be nonirrigable; also to assent to the reduction of stock subscription for any such lands to the acreage so shown as irrigable. Departmental Decisions, March 11, 1912. and September 16, 1912.

Taxation of land within reclamation project.—A patent to lands within a reclamation project issued to a homestead entryman under act of August 9, 1912 (37 Stat. 265), on proof of compliance with the provisions of law as to residence, reclamation, and irrigation conveys a legal title, the Government reserving only a prior lien on the land and appurtenant water rights as security for the payment of all sums due or to become due on such water rights, and such lands are taxable by the State; the lien of the tax, however, being subject to the prior lien reserved by the Government. Homestead entrymen on such lands who have made proof of compliance with the general homestead laws, but have not fully complied with the additional requirements of the reclamation act as to reclamation and irrigation, have a vested interest which may be sold, mortgaged, and inherited and which also is subject to local taxation. Generally speaking, one who has the right to real property and is not excluded from its use and enjoyment should not be permitted to use the legal

title of the Government to avoid his just share of taxation. *United States v. Canyon County, Idaho et al.*, 232 Fed., 985. See also *Cheney v. Minidoka County*, 26 Idaho, 471, 144 Pac., 343.

To the contrary, see Law Notes, Reclamation Record, 1915, p. 554; Reclamation Record, 1916, p. 65.

Miscellaneous references.—Secretary's Instructions of August 30, 1904, relating to form of contracts to be made between water users' associations and land owners, 33 L. D., 202.

General Land Office Instructions of January 18, 1908, to registers and receivers in reference to this section, 36 L. D. 256.

General Land Office Instructions of February 10, 1909, to registers and receivers in reference to reclamation of land, 37 L. D. 448.

Secretary's Regulations of February 27, 1909, regarding reclamation of land, 37 L. D. 468.

General Land Office Circular of September 17, 1909, to registers and receivers, regarding proofs, 38 L. D. 229.

Secretary's Instructions of November 15, 1909, as to information from fiscal records, 38 L. D. 311.

Sections 100-115 inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D. 385.

Sec. 6. [Reclamation fund to be used for operation and maintenance—Management of works to pass to landowners—Title.] That the Secretary of the Interior is hereby authorized and directed to use the reclamation fund for the operation and maintenance of all reservoirs and irrigation works constructed under the provisions of this act: *Provided*, That when the payments required by this act are made for the major portion of the lands irrigated from the waters of any of the works herein provided for, then the management and operation of such irrigation works shall pass to the owners of the lands irrigated thereby, to be maintained at their expense under such form of organization and under such rules and regulations as may be acceptable to the Secretary of the Interior: *Provided*, That the title to and the management and operation of the reservoirs and the works necessary for their protection and operation shall remain in the Government until otherwise provided by Congress. [32 Stat., 389.]

Payment for operation and maintenance.—The Secretary of the Interior, being authorized to tax and determine the charges, is authorized to divide the same into two parts—one for construction and the other for maintenance and operation; and hence he is authorized to impose reasonable assessments on land irrigated prior to the time when payment of the major portion of the cost of construction had been made and the works passed under management of the owners of the irrigated land. *United States v. Cantrall*, 176 Fed., 949.

Where, by a contract between the United States and landowners tributary to a Federal irrigation system, such landowners agreed to pay to the United States the charges duly levied against their lands

for the construction and maintenance of the system, they were only liable for such reasonable charges as the Government was authorized to collect proportionate to their share of the cost of maintaining and operating the system, and not such as might be arbitrarily fixed in advance by such Secretary or other governmental officer. *Idem*.

The Secretary of the Interior has authority to levy and collect assessments on land irrigated from any works to defray the cost of maintaining such works until the time when, under the act, the management passes to the landowners. *Baker v. Swigart*, 196 Fed., 569, reversed in 199 Fed., 865, 118 C. O. A., 313, but affirmed in *Swigart v. Baker*, 229 U. S., 187, 57 L. Ed., 1143, 33 Sup. Ct., 645.

Sec. 7. [Authority to acquire property—Attorney General to institute condemnation proceedings.] That where in carrying out the provisions of this act it becomes necessary to acquire any rights or property, the Secretary of the Interior is hereby authorized to acquire the same for the United States by purchase or by condemnation under judicial process, and to pay from the reclamation fund the sums which may be needed for that purpose, and it shall be the duty of the Attorney General of the United States upon every application of the Secretary of the Interior, under this act, to cause proceedings to be commenced for condemnation within thirty days from the receipt of the application at the Department of Justice. [*32 Stat., 389.*]

Property that may be acquired.—Under the provisions of the reclamation act, the Secretary of the Interior has power to acquire the rights and property necessary therefor, including those of allottee Indians by paying for their improvements, and giving them the right of selecting other lands. The restrictions on alienation of lands allotted to Indians within the area of the Milk River irrigation project do not extend to prohibiting an allottee Indian from selling his improvements to the United States and selecting other lands so that the United States could use the lands selected for purposes of an irrigation project as provided by act of Congress. *Henkel v. U. S.*, 237 U. S., 43, 59 L. Ed., 831, 35 Sup. Ct., 536, affirming 196 Fed., 345, 116 C. C. A., 165.

The act does not authorize the use of the reclamation fund for the purchase of any land except such as may be necessary in the construction and operation of irrigation works. *California Development Co.*, 33 L. D., 391.

There is no authority for the use of the reclamation fund, either directly by the Secretary or indirectly by advancement to others, for the purchase of lands or other property outside of the territorial limits of the United States. *Idem.*

Where an irrigation system already constructed and in operation may be utilized in connection with a greater system to be constructed under the act, its purchase for such purpose comes within the purview of the act. *Idem.*

The act affords authority for the purchase of an incomplete irrigation system to be used in connection with and to become a part of a larger system con-

templated by the Government. Opinion Assistant Attorney General, January 6, 1906, 34 L. D., 351.

Until so authorized by Congress, neither the department nor the territorial government of Arizona has power to dedicate for use in connection with an irrigation project lands in said Territory which, by section 2 of the act of February 2, 1863 (12 Stat., 664, sec. 1946, R. S.), have been reserved for school purposes to the future State to be erected including the same. Secretary's Instructions, May 10, 1904, 32 L. D., 604.

The Secretary has no authority under the seventh section of this act to compensate settlers upon lands within the limits of a withdrawal made in connection with an irrigation project, unless they have in good faith acquired an inchoate right to the land by complying with the requirements of law up to the date of the withdrawal and have such a claim as ought to be respected by the United States. Opinion Assistant Attorney General, October 12, 1905, 34 L. D., 155.

The Secretary has no authority to permit the owner of lands needed for a reservoir to be constructed under said act to select other lands of the same area within the district that may be made susceptible of irrigation from the proposed reservoir, in exchange for the lands so needed for reservoir purposes. Opinion Assistant Attorney General, February 20, 1904, 32 L. D., 459.

The Secretary has no authority, under existing legislation, to permit the cutting of timber from the public lands for use in the construction of irrigation works under said act. Opinion Assistant Attorney

General, March 12, 1904, 32 L. D., 495. But see act of February 8, 1905, 33 Stat., 706.

The act does not authorize the expense of procuring mere options to purchase rights of way, water rights or lands. 9 Comp. Dec., 569.

The reclamation act permits the United States to acquire strips of land, aggregating 10 per cent of the irrigable area of a project, and establish and maintain thereon plantations of trees and shrubs to serve as windbreaks, in order to facilitate and protect the agricultural development of the adjacent irrigable lands and to protect irrigation canals and laterals. Departmental Decision, July 24, 1912 (Umatilla).

Condemnation.—The power conferred on the Secretary of the Interior by the reclamation act to condemn lands necessary for use in constructing irrigation works, is not subject to limitation by State statutes relating to the exercise of the power of eminent domain of the State nor is its exercise governed by a State procedure requiring the necessity of the taking in each particular case to be determined by a local commission, but such necessity is a matter to be determined by the Secretary, whose decision is not reviewable by the courts. *United States v. O'Neill*, 198 Fed., 677.

Lands condemned by the United States under the reclamation act for right of way for a canal or ditch required in the carrying out of an irrigation project are taken for a public use. *Idem*.

In proceedings by the United States to condemn right of way for a ditch under the reclamation act which provides a fund from which the damages assessed shall be paid, it is not necessary that the damages shall be assessed and paid before the Government may be allowed to take possession. *Idem*.

In a proceeding by the United States to condemn land for reservoir purposes, whether a more feasible plan of irrigation than the one adopted might be devised, or some other site selected for the reservoir, is immaterial; the determination of the proper Government authorities being conclusive. *United States v. Burley*, 172 Fed., 615, affirmed 179 Fed., 1, 102 C. C. A., 429, 33 L. R. S. (N. S.), 807.

The United States has constitutional authority to organize and maintain an irrigation project within a State where it owns arid lands, whereby it will associate with itself other owners of like lands for the purpose of reclaiming and improving them, and for that purpose may exercise the right of eminent domain against other land owners to obtain land necessary to carry the proposed project into effect. *Burley v. United States*, 179 Fed., 1, 102 C. C. A., 429, 33 L. R. A. (N. S.), 807, affirming 172 Fed., 615.

The fact that a scheme contemplates the irrigation of private as well as Government land does not prevent condemnation of land necessary to carry it out. *Idem*.

Title.—The Secretary has no authority to embark upon or commit the Government to any irrigation enterprise that does not contemplate the absolute transfer of the property involved to the United States. *California Development Co.*, 33 L. D., 391.

The act contemplates that the United States shall be the full owner of irrigation works constructed thereunder, and clearly inhibits the acquisition of property, for use in connection with an irrigation project, subject to servitudes or perpetual obligation to pay rents to a landlord holding the legal title. *Opinion Assistant Attorney General*, October 19, 1906, 34 L. D., 186.

Where title to land passes to the United States pending taxing proceedings and prior to levy, the land passes beyond the taxing power of the State and no lien attaches, the United States taking the title free of the tax incumbrance. Departmental Decision, in re *John M. Simmons* (Boise), April 25, 1910.

The fact that the United States is immune to process for collection of municipal and State revenue does not justify the acquisition of property subject to a tax lien. The fact of immunity requires a more scrupulous course of conduct in order that the United States may do nothing tending to defeat the public revenues of the States or their municipalities. *Opinion Assistant Attorney General*, November 23, 1912, in re *Northwestern Improvement Co. (Yakima)*.

Where the Government acquires an irrigation system held in private owner-

ship, for use in connection with a reclamation project under the act of June 17, 1902 (32 Stat., 388), it takes the same free from any obligation or control of State authority theretofore existing. Opinion Assistant Attorney General, July 7, 1908, 37 L. D., 6.

Assured title to lands donated to the United States must be shown. Opinion Assistant Attorney General, March 28, 1911, in re Jos. Cunha (Umatilla).

Where real estate owned by heirs in common is to be conveyed to the United States for a very small consideration and the grantors will not bring administration proceedings upon the estate of the decedent owner, a deed executed by all the heirs will be accepted after submission of credible proof by well-informed persons as to the heirs, indebtedness, etc., of decedent. Departmental Decision, November 26, 1900. See also office letter (Rio Grande) August 25, 1911.

Expense of abstracts of title.—The expense of procuring abstracts of title to land or rights to be acquired under this act is payable from the appropriation known as the "reclamation fund," provided the land or rights are to be purchased and not condemned. When, however, a suit for condemnation is brought the expenses of such suit, like all other suits in which the United States is a party, are payable from the appropriations made for the Department of Justice. 9 Comp. Dec., 569.

Lease of property acquired.—The Secretary has full authority to purchase lands necessary for reservoir purposes, to arrange the terms of purchase, and to allow the vendor to retain possession until the land may be actually needed where by so doing the purchase may be more advantageously made; but he has no authority under said act to lease such purchased lands after the Government has taken possession thereof. Secretary's Instructions, January 28, 1904, 32 L. D., 416.

The Secretary has authority to make temporary leases of lands reserved or acquired by purchase for use in connection with an irrigation project where use under such lease will not interfere with the use and control of the lands when

needed for the purposes contemplated by the reservation or purchase. Opinion Assistant Attorney General, March 10, 1906, 34 L. D., 480.

Temporary leases for grazing and other agricultural purposes may be made of lands acquired through condemnation proceedings for reservoir or canal purposes in reclamation projects during such periods as may elapse between the acquisition of title and the actual use of the same for reservoirs and canals. Secretary's Instructions, February 28, 1911, 39 L. D., 525.

All such leases should state the purpose for which the lands were acquired and that such purpose will not in any manner be interfered with or delayed by the lease; should specifically provide for the immediate, or speedy, termination of the lease in event it is desired to utilize the land or any part thereof for reclamation works, or in event the work of reclamation is found to be hindered or delayed by reason thereof; and should be limited to one year, but may contain provision for renewal for the succeeding year in event the lands should not sooner be needed for reclamation purposes. *Idem*.

See notes under section 3 of this act

Miscellaneous references.—General Land Office Instructions of June 30, 1909, to registers and receivers in reference to condemning improvements, 38 L. D., 58, amending Regulations of June 6, 1905, 33 L. D., 607.

A seller of a traction engine for use by the buyer in the performance of his contract with the Government under the reclamation act, who, as mortgagee for the price remained the owner with right to possession for the failure of the buyer to pay at maturity the first note for the price, could, on the Government taking possession, as authorized by this section, of the contractor's machinery and completing the work, sue the Government for the value of the use of the engine either on an implied contract to pay therefor, or on its constitutional obligation within the Tucker act of March 3, 1887 (24 Stat., 505), authorizing actions on claims founded on the Constitution or on contracts, express or implied. *United States v. Buffalo Pitts Co.*, 193 Fed. 905.

Sec. 8. [Irrigation laws of States and Territories not affected—Interstate streams—Water rights.] That nothing in this act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of this act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof: *Provided*, That the right to the use of water acquired under the provisions of this act shall be appurtenant to the land irrigated and beneficial use shall be the basis, the measure, and the limit of the right. [32 Stat., 390.]

Appropriation of water.—The right to the use of water acquired under this act must be appurtenant to the land and beneficial use is the basis, the measure, and the limit of the right. *Imperial Water Co., No. 5, v. Holabird, as receiver, California Development Co.*, 197 Fed., 4, 116 C. C. A., 526.

There can be no beneficial use of water for irrigation until it is actually applied to reclamation of the land. The final and only conclusive test of reclamation is production. This does not, perhaps,

necessarily mean the maturing of a crop, but certainly does mean the securing of actual growth of a crop. Departmental Decision, February 5, 1909.

Congress has control over navigable streams and the waters thereof, and no claim based upon appropriation of such waters for irrigation purposes, made without sanction of Congress, should be recognized by the Secretary of the Interior as valid. *California Development Company*, 33 L. D., 391.

Sec. 9. [Repealed by section 6, act of June 25, 1910, 36 Stat., 835.]

The repealed section reads as follows:

"That it is hereby declared to be the duty of the Secretary of the Interior in carrying out the provisions of this act, so far as the same may be practicable and subject to the existence of feasible irrigation projects, to expend the major portion of the funds arising from the sale of public lands within each State and Territory hereinbefore named for the benefit of arid and semiarid lands within the limits of such State or Territory: *Provided*, That the Secretary may temporarily use such portion of said funds for the benefit

of arid or semiarid lands in any particular State or Territory hereinbefore named as he may deem advisable, but when so used the excess shall be restored to the fund as soon as practicable, to the end that ultimately, and in any event, within each ten-year period after the passage of this act, the expenditures for the benefit of the said States and Territories shall be equalized according to the proportions and subject to the conditions as to practicability and feasibility aforesaid."

Sec. 10. [Authority to make rules and regulations.] That the Secretary of the Interior is hereby authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying the provisions of this act into full force and effect. [32 Stat., 390.]

Authority for and effect of rules and regulations.—Congress may authorize the Secretary of the Interior to make rules and regulations for the carrying into effect of the provisions of a law as to the public lands, the enforcement of which devolves on his department. *Clyde v. Cummings*, 35 Utah, 461, 101 Pac., 106.

A rule by the Secretary of the Interior, the import of which is to carry into effect the provisions of an act relating to the public lands, is valid, and has the same binding force as the law itself. *Idem*.

This section gives the Secretary of the Interior no authority or power that he would not have if it were omitted. Opinion Attorney General, April 27, 1905.

Use of withdrawn lands.—The Secretary of the Interior may establish rules as to the use of withdrawn lands while not needed for the purpose for which they are reserved, and may lease them for grazing and limit animals to be grazed thereon, the revenue derived going into the reclamation fund. *Clyde v. Cummings*, 35 Utah, 461, 101, Pac., 106.

Lease of rooms.—The appropriation known as the "reclamation fund," being a permanent appropriation, the Secretary of the Interior may, under the power conferred on him by this section, authorize the leasing of certain rooms in Phoenix, Arizona, for a period of five years for the use of the Reclamation Service, the rent therefor to be paid from said appropriation. 10 Comp. Dec., 461.

Young Men's Christian Associations.—Under the broad authority conferred upon the Secretary of the Interior by this section, he may, by specific contract with the employees of the Reclamation Service or by general regulation, employ trained secretaries of the Young Men's Christian Association to improve the conditions in

construction camps and to look after the sanitary and related matters as incidental to the employment of and as a part of the compensation of said employees and payment therefor may be made from the reclamation fund. 14 Comp. Dec., 672.

Liquidation of damages.—Where damage to lands arises in connection with construction, operation, or maintenance of a reclamation project, and is caused neither by negligence nor by accident, the Secretary of the Interior now and always has had, under section 10 of the reclamation act, the power to liquidate the damages, as declared by Congress in the appropriation act of March 3, 1915. (38 Stat., 351.) The latter act is a legislative construction of the reclamation act. The damages in question must be due to acts by direction of competent authority. In *re Scott* (Shoshone), Comp. Dec., June 15, 1915.

Appeals.—Appeals from the action of a project engineer lie in the first instance to the Director of the Reclamation Service, with right of further appeal to the Secretary of the Interior. *Williston Land Co.*, 39 L. D., 2.

The instructions of June 27, 1910 (39 L. D., 51) providing for appeals to the Director of the Reclamation Service and the Secretary of the Interior, successively, from adverse action of project engineers, are applicable only in cases involving questions which properly rest for decision within the jurisdiction of the Reclamation Service. *Anna M. Wright*, 40 L. D., 116.

See *Reclamation Regulations* of June 27, 1910, as to appeals from action of field officers in reclamation matters, 39 L. D., 51.

See sections 148-153, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

See notes under section 1 of this act.

RECLAMATION OF INDIAN LANDS IN YUMA, COLORADO RIVER, AND PYRAMID LAKE INDIAN RESERVATIONS.

(Extracts from) An act making appropriations for the current and contingent expenses of the Indian Department, and for fulfilling treaty stipulations with various Indian tribes for the fiscal year ending June 30, 1905, and for other purposes. (Act Apr. 21, 1904, ch. 1402, 33 Stat., 189.)

* * * * *

Sec. 25. [Reclamation and disposal of irrigable lands in Yuma and Colorado River Reservations—Diversion of Colorado River—Allotment—Price per acre—Installment payments—Proceeds.] That in carrying out any irrigation enterprise which may be undertaken under the provisions of the reclamation act of June seventeenth, nineteen hundred and two, and which may make possible and provide for, in connection with the reclamation of other lands, the reclamation of all or any portion of the irrigable lands on the Yuma and Colorado River Indian Reservations in California and Arizona, the Secretary of the Interior is hereby authorized to divert the waters of the Colorado River and to reclaim, utilize, and dispose of any lands in said reservations which may be irrigable by such works in like manner as though the same were a part of the public domain: *Provided*, That there shall be reserved for and allotted to each of the Indians belonging on the said reservations five ¹ acres of the irrigable lands. The remainder of the lands irrigable in said reservations shall be disposed of to settlers under the provisions of the reclamation act: *Provided further*, That there shall be added to the charges required to be paid under said act by settlers upon the unallotted Indian lands such sum per acre as, in the opinion of the Secretary of the Interior, shall fairly represent the value of the unallotted lands in said reservations before reclamation; said sum to be paid in annual installments in the same manner as the charges under the reclamation act. Such additional sum per acre when paid shall be used to pay into the reclamation fund the charges for the reclamation of the said allotted lands, and the remainder thereof shall be placed to the credit of said Indians and shall be expended from time to time under the direction of the Secretary of the Interior for their benefit. [33 Stat., 224.]

Sec. 26. [Reclamation and disposal of irrigable lands in Pyramid Lake Indian Reservation—Allotment—Price per acre—Installment payments—Proceeds.] That in carrying out any irrigation enterprise which may be undertaken under the provisions of the reclamation act

¹ Areas to be allotted increased to 10 acres for each Indian by act of Mar. 3, 1911, 36 Stat., 1053, 1053.

of June seventeenth, nineteen hundred and two, and which may make possible and provide for, in connection with the reclamation of other lands, the reclamation of all or any portion of the irrigable lands on the Pyramid Lake Indian Reservation, Nevada, the Secretary of the Interior is hereby authorized to reclaim, utilize, and dispose of any lands in said reservation which may be irrigable by such works in like manner as though the same were a part of the public domain: *Provided*, That there shall be reserved for and allotted to each of the Indians belonging on the said reservation five acres of the irrigable lands. The remainder of the lands irrigable in said reservation shall be disposed of to settlers under the provisions of the reclamation act: *Provided further*, That there shall be added to the charges required to be paid under said act by settlers upon the unallotted Indian lands such sum per acre as in the opinion of the Secretary of the Interior shall fairly represent the value of the unallotted lands in said reservation before reclamation, said sum to be paid in annual installments in the same manner as the charges under the reclamation act. Such additional sum per acre, when paid, shall be used to pay into the reclamation fund the charges for the reclamation of the said allotted lands, and the remainder thereof shall be placed to the credit of said Indians and shall be expended from time to time under the direction of the Secretary of the Interior for their benefit. [33 Stat., 225.]

* * * * *

USE OF CONSTRUCTION MATERIALS FROM PUBLIC LANDS AND FORESTS.

An act authorizing the use of earth, stone, and timber on the public lands and forest reserves of the United States in the construction of works under the national irrigation law. (Act Feb. 8, 1906, ch. 552, 33 Stat., 706.)

[Sec. 1. Use of earth, stone, and timber on public lands for irrigation works.] That in carrying out the provisions of the national irrigation law, approved June seventeenth, nineteen hundred and two, and in constructing works thereunder, the Secretary of the Interior is hereby authorized to use and to permit the use of by those engaged in the construction of works under said law, under rules and regulations to be prescribed by him, such earth, stone, and timber from the public lands of the United States as may be required in the construction of such works, and the Secretary of Agriculture is hereby authorized to permit the use of earth, stone, and timber from the forest reserves of the United States for the same purpose, under rules and regulations to be prescribed by him. [33 Stat., 706.]

Timber from national forests.—Under this act the Reclamation Service may use timber from the national forests without charge in connection with work performed in cooperation with private parties under the provisions of the Warren Act of February 21, 1911 (36 Stat., 925). In re Jackson Lake, Op. Atty. Gen., July 3, 1905.

Subject to the necessities of reclamation use, the timber on withdrawn lands may be sold by the Department of Agriculture without reference to the Reclamation Service. Opinion Attorney General, July 3, 1915.

CHANGING LEVELS OF LAKES IN OREGON AND CALIFORNIA.

An act authorizing the changing of the levels of certain lakes and the disposal of certain lands under the terms of the national reclamation act. (Act Feb. 9, 1906, 32 Stat., 714.)

[Sec. 1. Authority to change lake levels and dispose of lands.] That the Secretary of the Interior is hereby authorized in carrying out any irrigation project that may be undertaken by him under the terms and conditions of the national reclamation act and which may involve the changing of the levels of Lower or Little Klamath Lake, Tule or Rhett Lake, and Goose Lake, or any river or other body of water connected therewith, in the States of Oregon and California, to raise or lower the level of said lakes as may be necessary and to dispose of any lands which may come into the possession of the United States as a result thereof by cession of any State or otherwise under the terms and conditions of the national reclamation act. [33 Stat., 714.]

Oregon Legislation.—In connection with the above statute the State of Oregon enacted the following law:

An act to authorize the utilization of Upper Klamath Lake, Lower or Little Klamath Lake, and Tule or Rhett Lake, situate in Klamath County, Oregon, and Goose Lake, situate in Lake County, Oregon, in connection with the irrigation and reclamation operations of the Reclamation Service of the United States, and to cede to the United States all the right, title, interest, and claim of the State of Oregon to any and all lands recovered by the lowering of the water levels or by the drainage of any or all of said lakes.

Be it enacted by the Legislative Assembly of the State of Oregon; Be it enacted by the people of the State of Oregon:

SECTION 1. That for the purpose of aiding in the operations of irrigation and reclamation conducted by the Reclamation Service of the United States, established by the act of Congress approved June 17, 1902 (32 Stat., 388), known as the reclamation act, the United States is hereby authorized to lower the water level of Upper Klamath Lake, situate in Klamath County, Oregon, and to lower the water level of or to drain any or all of the following lakes: Lower or Little Klamath Lake and Tule or Rhett Lake, situate in Klamath County, Oregon, and

Goose Lake, situate in Lake County, Oregon, and to use any part or all of the beds of said lakes for the storage of water in connection with such operations.

SEC. 2. That there be, and hereby is, ceded to the United States all the right, title, interest, or claim of this State to any land uncovered by the lowering of the water levels or by the drainage of any or all of said lakes not already disposed of by the State; and the lands hereby ceded may be disposed of by the United States, free of any claim on the part of this State in any manner that may be deemed advisable by its authorized agencies, in pursuance of the provisions of said reclamation act.

Approved, January 20, 1905. (General Laws of Oregon, 1905, p. 63.)

California legislation.—The State of California passed the following law:

An act authorizing the United States Government to lower the water levels of any or all of the following lakes: Lower or Little Klamath Lake, Tule or Rhett Lake, Goose Lake, and Clear Lake, situated in Siskiyou and Modoc Counties, and to use any part or all of the beds of said lakes for the storage of water in connection with the irrigation and reclamation operations conducted by the Reclamation Service of the United States; also ceding to the United States all right, title, interest,

or claim of the State of California to any lands uncovered by the lowering of the water levels of any or all of said lakes not already disposed of by the State.

The people of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. That for the purpose of aiding in the operations of irrigation and reclamation conducted by the Reclamation Service of the United States, established by the act of Congress approved June seventeenth, nineteen hundred and two (thirty-second Statutes, page three hundred and eighty-eight), known as the reclamation act, the United States is hereby authorized to lower the water levels of any or all of the following lakes: Lower or Little Klamath Lake, Tule or Rhett Lake, Goose Lake, and Clear Lake, situated in Siskiyou and Modoc Counties, as shown by the map of the United States Geological Survey, and to use any part or

all of the beds of said lakes for the storage of water in connection with such operations.

SEC. 2. And there is hereby ceded to the United States all the right, title, interest, or claim of this State to any lands uncovered by the lowering of the water levels of any or all of said lakes not already disposed of by this State; and the lands hereby ceded may be disposed of by the United States free of any claim on the part of this State in any manner that may be deemed advisable by the authorized agencies of the United States in pursuance of the provisions of said reclamation act: *Provided*, That this act shall not be in effect as to lakes herein named, which lie partly in the State of Oregon, until a similar cession has been made by that State.

Approved, February 3, 1905. (Cal. Stats., 1905, p. 4.)

CONSTRUCTION OF RIO GRANDE DAM.

An act relating to the construction of a dam and reservoir on the Rio Grande, in New Mexico, for the impounding of the flood waters of said river for the purposes of irrigation. (Act Feb. 25, 1906, 33 Stat., 814.)

[Sec. 1. Reclamation act to apply to portion of Texas—Subject to certain conditions, irrigation dam may be constructed on the Rio Grande.] That the provisions of the reclamation act approved June seventeenth, nineteen hundred and two, shall be extended for the purposes of this act to the portion of the State of Texas bordering upon the Rio Grande which can be irrigated from a dam to be constructed near Engle, in the Territory of New Mexico, on the Rio Grande, to store the flood waters of that river, and if there shall be ascertained to be sufficient land in New Mexico and in Texas which can be supplied with the stored water at a cost which shall render the project feasible and return to the reclamation fund the cost of the enterprise, then the Secretary of the Interior may proceed with the work of constructing a dam on the Rio Grande as part of the general system of irrigation, should all other conditions as regards feasibility be found satisfactory. [33 Stat., 814.]

See treaty with Mexico of May 21, 1906, 34 Stat., 2953.

See act of June 12, 1906, 34 Stat., 259, extending the reclamation act to the State of Texas.

Purpose of act.—This act was passed for the purpose of enabling the United States to carry into effect the terms of a proposed treaty or convention with Mexico, which was afterwards signed on May 21, 1906 (34 Stat., 2953). *Burley v. United States*, 179 Fed., 1; 102 C. C. A., 429; 33 L. R. A. (N. S.), 807, affirming 172 Fed., 615.

Dams across the Rio Grande.—The Secretary of the Interior had no power under the act of March 3, 1891 (26 Stat., 1093), providing for the location and selection of reservoir sites on the public lands of the United States and rights of way for the irrigating ditches and canals, to grant a right to construct dams across the Rio Grande for the purpose of checking the flow of water and distributing it for irrigation purposes. The control and

supervision of the navigable waters of the United States are vested in the Secretary of War. The remedy of the United States in case of the erection of a dam across navigable waters is by injunction, under section 10 of the act of September 19, 1890 (26 Stats., 454), and if the dam has been constructed, also by criminal prosecution. 21 Op. Atty. Gen., 518.

Effect of treaty of Guadalupe Hidalgo upon irrigation from the Rio Grande.—Article VII of the treaty of February 2, 1848, between Mexico and the United States, known as the treaty of Guadalupe Hidalgo, is still in force, so far as it affects the Rio Grande. 21 Op. Atty. Gen., 274.

The taking of water for irrigation from the Rio Grande above the point where it ceases to be entirely within the United States and becomes the boundary between the United States and Mexico is not prohibited by said treaty. *Idem*.

Article VII is limited in terms to that part of the Rio Grande lying below the

southern boundary of New Mexico and applies to such works alone as either party might construct on its own side. *Idem.*

The only right the treaty professed to create or protect with respect to the Rio Grande was that of navigation. Claims against the United States by Mexico for indemnity for injuries to agriculture alone, caused by scarcity of water resulting from irrigation ditches wholly within the United States at places far above the head of navigation, find no support in the treaty. *Idem.*

International law.—The rules, principles, and precedents of international law impose no duty or obligation upon the United States of denying to its inhabitants the use of the water of that part of the Rio Grande lying entirely within the United States, although such use

results in reducing the volume of water in the river below the point where it ceases to be entirely within the United States. 21 Op. Atty. Gen., 274.

The fact that there is not enough water in the Rio Grande for the use of the inhabitants of both countries for irrigation purposes does not give Mexico the right to subject the United States to the burden of arresting its development and denying to its inhabitants the use of a provision which nature has supplied entirely within its own territory. The recognition of such a right is entirely inconsistent with the sovereignty of the United States over its national domain. *Idem.*

See Document No. 39, House of Representatives, Sixty-second Congress, first session, "Waters of the Rio Grande and its tributaries."

DISPOSAL OF PROCEEDS OF SALES OF PROPERTY AND REFUNDS OF MONEY.

An act to provide for the covering into the reclamation fund certain proceeds of sales of property purchased by the reclamation fund. (Act Mar. 3, 1905, ch. 1469, 33 Stat., 1032.)

[Sec. 1. Proceeds from certain sales and refunds to be covered into the reclamation fund.] That there shall be covered into the reclamation fund established under the act of June seventeenth, nineteen hundred and two, known as the reclamation act, the proceeds of the sales of material utilized for temporary work and structures in connection with the operations under the said act, as well as of the sales of all other condemned property which had been purchased under the provisions thereof, and also any moneys refunded in connection with the operations under said reclamation act. [33 Stat., 1032.]

Act does not operate retrospectively.—This act only relates to and affects such moneys as have been and shall be derived from the specified sources after the passage of the act, and moneys so derived prior to its passage but which had not been deposited in the Treasury to the credit of some other fund. It does not operate retrospectively. 12 Comp. Dec., 297.

Refunds and proceeds not credited to projects.—Moneys received by the Reclamation Service, both as refunds and as proceeds of sales of material and property that have served their purpose in connection with reclamation projects, must be credited to the reclamation fund generally and not to the particular appropriation made therefrom for the project from which the refunds or sales arose. Such application will not work to the detriment of the water users on any particular project, since the matter of the *net cost* of any such project and hence the amount to be paid by the water users as reimbursement of the Government for such cost is to be determined by the Interior Department quite independently of the question as to what particular public fund is to be credited with refunds or sales arising in connection with the project. 22 Comp. Dec., 54.

Receipts from sales of certain commissary supplies.—Where funds paid to the Reclamation Service pursuant to contract by an irrigation company to cover

the cost of work being done by that service for the benefit of said company are expended for commissary and other supplies, which are resold during the progress of the work, the receipts from such resales are to be applied to the completion of the work and are not to be covered into the reclamation fund. 22 Comp. Dec., 289.

Moneys forfeited by bidders.—Moneys forfeited by successful bidders for work under the Reclamation Service because of failure to perform the award should, under the provisions of this act, be covered into the Treasury to the credit of the reclamation fund. 12 Comp. Dec., 297.

Erroneous deposit in Treasury.—When moneys appropriated by Congress for a particular purpose have been erroneously covered into the Treasury to the credit of the unappropriated surplus, the error may be corrected by withdrawing the moneys from the Treasury and recovering them into the credit of the appropriation to which Congress directed they should belong. The proceeds of sales of property belonging to the Reclamation Service required by this act to be covered into the Treasury to the credit of the reclamation fund form a part of the appropriation for the Reclamation Service, and those erroneously covered into the Treasury as "proceeds of Government property" may be withdrawn from the Treasury and recovered into the credit of the reclamation fund. 12 Comp. Dec., 733.

TOWN SITES AND LEASING POWER.

An act providing for the withdrawal from public entry of lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June 17, 1902, and for other purposes. (Act Apr. 10, 1906, ch. 1631, 34 Stat., 116.)

[Sec. 1. Withdrawal of lands for reclamation town sites—Survey of town sites—Reservations for public purposes.] That the Secretary of the Interior may withdraw from public entry any lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June seventeenth, nineteen hundred and two, not exceeding one hundred and sixty acres in each case, and survey and subdivide the same into town lots, with appropriate reservations for public purposes. [34 Stat., 116.]

See act of October 5, 1914, 38 Stat., 727.

Park in town site.—A park within a town site established under this act is not a country park, public playground,

or community center contemplated by act of October 5, 1914 (38 Stat., 727), and water can not be delivered thereon free of charge. Departmental Decision, June 18, 1915.

Sec. 2. [Appraisal of lots—Sale at auction—Subsequent sale—Expenses and proceeds.] That the lots so surveyed shall be appraised under the direction of the Secretary of the Interior and sold under his direction at not less than their appraised value at public auction to the highest bidders, from time to time, for cash, and the lots offered for sale and not disposed of may afterwards be sold at not less than the appraised value under such regulations as the Secretary of the Interior may prescribe. Reclamation funds may be used to defray the necessary expenses of appraisement and sale, and the proceeds of such sales shall be covered into the reclamation fund. [34 Stat., 116.]

See act of June 27, 1906, 34 Stat., 519.

See Newell townsite act of September 8, 1916, 39 Stat., 852.

Receipts.—The gross receipts from the sale of town-site lots should be considered as revenues, and not as a repayment in part and revenues in part. Comp. Dec., December 6, 1906.

It is not permissible to deduct the receipts from the sale of town lots from construction or operation and maintenance cost. Neither is it permissible to class such receipts as repayments under the comptroller's decision of December 6, 1906. They are accretions to the reclamation fund directly resulting from the

operations of the Reclamation Service. C. L. 639, March 22, 1917.

It is not the intent of Congress by this act to take away the right of the State of Idaho to the 5 per cent of the net proceeds of sales of public lands lying within said State for the support of the common schools of the State. If, however, the whole proceeds of said sales have been covered into the reclamation fund and the 5 per cent paid to the State out of the permanent indefinite appropriation therefor, the reclamation fund should be charged therewith. 20 Comp. Dec., 365.

Sec. 3. [Public reservations to be maintained by town authorities—Conveyances of same to municipal corporations.] That the public reservations in such town sites shall be improved and maintained by the town authorities at the expense of the town; and upon the organization thereof as municipal corporations the said reservations shall be conveyed to such corporations by the Secretary of the Interior, subject to the condition that they shall be used forever for public purposes. [*34 Stat., 116.*]

Public purposes.—Reservations for fire house, town hall, and armory approved. | Departmental Decision, July 15, 1916. (Powell, Shoshone).

Sec. 4. [Water rights for towns—Contracts therefor.] That the Secretary of the Interior shall, in accordance with the provisions of the reclamation act, provide for water rights in amount he may deem necessary for the towns established as herein provided, and may enter into contract with the proper authorities of such towns, and other towns or cities on or in the immediate vicinity of irrigation projects, which shall have a water right from the same source as that of said project for the delivery of such water supply to some convenient point, and for the payment into the reclamation fund of charges for the same to be paid by such towns or cities, which charges shall not be less nor upon terms more favorable than those fixed by the Secretary of the Interior for the irrigation project from which the water is taken. [34 Stat., 116.]

No contract with individual lot owners.—Application for water rights under the reclamation act by individual lot owners for lands which have been subdivided into town lots will not be allowed; but water may be supplied to towns from reclamation projects by delivery to some convenient point, to be handled and distributed to the inhabitants of the town by the municipal authorities in accordance with the provisions of this act. Secretary's Instruction, March 21, 1911, 39 L. D., 591.

Discretionary power of the Secretary.—It is within the discretion of the Secretary of the Interior to contract with towns in the manner provided by this section, or contract direct with water users upon town lots or tracts within the corporate limits or townsites regardless of the size of such lots or tracts. Opinion Chief Counsel, Reclamation Service, February 22, 1916, Commission Minutes 147, Docket 658.

See notes under section 5 of this act.

Sec. 5. [Development and lease of surplus power—Proceeds—Impairment of projects prohibited.] That whenever a development of power is necessary for the irrigation of lands under any project undertaken under the said reclamation act, or an opportunity is afforded for the development of power under any such project, the Secretary of the Interior is authorized to lease for a period not exceeding ten years, giving preference to municipal purposes, any surplus power or power privilege, and the moneys derived from such leases shall be covered into the reclamation fund and be placed to the credit of the project from which such power is derived: *Provided*, That no lease shall be made of such surplus power or power privilege as will impair the efficiency of the irrigation project. [34 Stat., 117.]

See act of February 24, 1911, 36 Stat., 930, amending this section.

Receipts.—The receipts arising from the sale or leasing of water rights to towns or others, and from the leases of power to towns or others, should be classed as repayments. Comp. Dec., December 6, 1906.

Returns from the sale of power and power privileges are to be credited as a refund on account of the construction cost

of the project. Departmental Decision December 28, 1916.

See resolution of reclamation commission, December 28, 1914, as to application of power receipts.

See also "Receipts from Sale of Water Power," Hearing, February 12, 1917, before Committee on Irrigation of Arid Lands, House of Representatives, Sixty-fourth Congress, second session.

EXTENSION OF RECLAMATION ACT TO TEXAS.

An act to extend the irrigation act to the State of Texas. (Act June 12, 1903, ch. 3263, 34 Stat., 259.)

[Sec. 1. Reclamation act to apply to Texas.] That the provisions of the act entitled "An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," approved June seventeenth, nineteen hundred and two, be, and the same are hereby, extended so as to include and apply to the State of Texas. [34 Stat., 259.]

See act of February 25, 1905, 33 Stat., 814, extending the reclamation act to a portion of the State of Texas.

SALE OF LANDS ALLOTTED TO INDIANS.

Extract from) An act making appropriations for the current and contingent expenses of the Indian Department, for fulfilling treaty stipulations with various Indian tribes, and for other purposes, for the fiscal year ending June 30, 1907. (Act June 21, 1906, ch. 3804, 34 Stat., 326.)

* * * * *

[Sales within reclamation projects.—Proceeds.] That any Indian allotted lands under any law or treaty without the power of alienation, and within a reclamation project approved by the Secretary of the Interior, may sell and convey any part thereof, under rules and regulations prescribed by the Secretary of the Interior, but such conveyance shall be subject to his approval, and when so approved shall convey full title to the purchaser the same as if final patent without restrictions had been issued to the allottee: *Provided*, That the consideration shall be placed in the Treasury of the United States and used by the Commissioner of Indian Affairs to pay the construction charges that may be assessed against the unsold part of the allotment, and to pay the maintenance charges thereon during the trust period, and any surplus shall be a benefit running with the water right to be paid to the holder thereof. [34 Stat., 327.]

* * * * *

See act of March 1, 1907, 34 Stat., 1615,
in reference to conveyance of Indian
lands.

See act of May 28, 1908, 35 Stat., 444,
regarding patents in fee to purchasers of
Indian lands.

FARM UNITS, TOWN SITES, AND DESERT-LAND ENTRIES.

An act providing for the subdivision of lands situated under the reclamation act, and for other purposes.
(Act June 27, 1906, ch. 3550, 34 Stat., 519.)

[Sec. 1. Minimum entries of less than 40 acres—Subdivision—Entries of lesser areas.] That whenever, in the opinion of the Secretary of the Interior, by reason of market conditions and the special fitness of the soil and climate for the growth of fruit and garden produce, a lesser area than forty acres may be sufficient for the support of a family on lands to be irrigated under the provisions of the act of June seventeenth, nineteen hundred and two, known as the reclamation act, he may fix a lesser area than forty acres as the minimum entry and may establish farm units of not less than ten nor more than one hundred and sixty acres. That wherever it may be necessary, for the purpose of accurate description, to further subdivide lands to be irrigated under the provisions of said reclamation act, the Secretary of the Interior may cause subdivision surveys to be made by the officers of the Reclamation Service, which subdivisions shall be rectangular in form, except in cases where irregular subdivisions may be necessary in order to provide for practicable and economical irrigation. Such subdivision surveys shall be noted upon the tract books in the General Land Office, and they shall be paid for from the reclamation fund: *Provided*, That an entryman may elect to enter under said reclamation act a lesser area than the minimum limit in any State or Territory. [34 Stat., 519.]

Subdivision of lands.—Under the authority conferred upon the Secretary by this act, to "fix a lesser area than 40 acres as the minimum entry" and to "establish farm units of not less than 10 or more than 160 acres," as to all lands withdrawn and entered under the reclamation act, he may make such subdivisions of the public lands entered under the reclamation act as in his judgment may be deemed advisable in units of 10 acres or multiples thereof up to 160 acres. Opinion Assistant Attorney General, August 10, 1906, 35 L. D., 110.

This act authorizes the Secretary to fix a lesser area than 40 acres as a farm unit when "by reason of market conditions and the special fitness of the soil and climate for the growth of fruit and garden

produce a lesser area than 40 acres may be sufficient for the support of a family," or when necessary "in order to provide for practical and economical irrigation," and there is no authority for subdividing a smallest legal subdivision under any other circumstances. Jerome M. Higman, 37 L. D., 718.

Lands platted to farm units can only be taken in accordance with the established units; and there can not be included in the same entry lands within a farm unit and other lands without. McDonald v. Risor, 42 L. D., 554.

See Reclamation Regulations of November 20, 1911, regarding amendment of farm units and adjustment of payments, 40 L. D., 312.

Sec. 2. [Additional entries for relinquished lands.] That wherever the Secretary of the Interior, in carrying out the provisions of the reclamation act, shall acquire by relinquishment lands covered by a bona fide unperfected entry under the land laws of the United States, the entryman upon such tract may make another and additional entry, as though the entry thus relinquished had not been made. [*34 Stat., 519.*]

Entries affected.—This section refers to entries so initiated under the land laws as to confer on the entryman vested rights which are voluntarily relinquished. *United States v. Hanson*, 167 Fed., 881; 93 C. C. A., 371.

Settlers on unsurveyed lands.—The statutes contain no provision for recog-

nition or protection of any right of a settler on unsurveyed public lands which may be withdrawn and reserved thereunder for construction of irrigation works, and he has no right to oppose taking the land therefor. *United States v. Hanson*, 167 Fed., 881; 93 C. C. A. 371.

Sec. 3. [Disposal of town sites within irrigation projects.] That any town site heretofore set apart or established by proclamation of the President, under the provisions of sections twenty-three hundred and eighty and twenty-three hundred and eighty-one of the Revised Statutes of the United States, within or in the vicinity of any reclamation project, may be appraised and disposed of in accordance with the provisions of the act of Congress approved April sixteenth, nineteen hundred and six, entitled "An act providing for the withdrawal from public entry of lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June seventeenth, nineteen hundred and two, and for other purposes"; and all necessary expenses incurred in the appraisal and sale of lands embraced within any such town site shall be paid from the reclamation fund, and the proceeds of the sales of such lands shall be covered into the reclamation fund. [*34 Stat., 519.*]

See notes under section 2, act of April 16, 1906, 34 Stat., 116.

* * * * *

Sec. 5. [Allowance of time to desert-land entrymen—Where irrigation project is abandoned—Relinquishment of excess areas if project is completed—Owners of water rights.] That where any bona fide desert-land entry has been or may be embraced within the exterior limits of any land withdrawal or irrigation project under the Act entitled "An Act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," approved June seventeenth, nineteen hundred and two, and the desert-land entryman has been or may be directly or indirectly hindered, delayed, or prevented from making improvements or from reclaiming the land embraced in any such entry by reason of such land withdrawal or irrigation project, the time during which the desert-land entry-

man has been or may be so hindered, delayed, or prevented from complying with the desert-land law shall not be computed in determining the time within which such entryman has been or may be required to make improvements or reclaim the land embraced within any such desert-land entry: *Provided*, That if after investigation the irrigation project has been or may be abandoned by the Government, time for compliance with the desert-land law by any such entryman shall begin to run from the date of notice of such abandonment of the project and the restoration to the public domain of the lands withdrawn in connection therewith, and credit shall be allowed for all expenditures and improvements heretofore made on any such desert-land entry of which proof has been filed; but if the reclamation project is carried to completion so as to make available a water supply for the land embraced in any such desert-land entry, the entryman shall thereupon comply with all the provisions of the aforesaid Act of June seventeenth, nineteen hundred and two, and shall relinquish all land embraced within his desert-land entry in excess of one hundred and sixty acres, and as to such one hundred and sixty acres retained, he shall be entitled to make final proof and obtain patent upon compliance with the terms of payment prescribed in said Act of June seventeenth, nineteen hundred and two, and not otherwise. But nothing herein contained shall be held to require a desert-land entryman who owns a water right and reclaims the land embraced in his entry to accept the conditions of said reclamation Act. [34 Stat., 520.]

See section 3, act of March 28, 1908, 35 Stat., 52.

Extension of time.—This section, authorizing an extension of time for compliance with law on desert entries within reclamation projects, applies only to entrymen who have been directly or indirectly delayed or prevented from carrying out their plans and works for obtaining a water supply by creation of a reclamation project. Frank C. Jones, 41 L. D., 377.

Right to water.—A desert entryman of lands falling within a Government reclamation project who seeks to secure water for the reclamation thereof from the project is required by this section as a condition precedent to his right to water, to relinquish to the Government all of the land embraced within his entry in excess of 160 acres. Secretary's Instructions, January 20, 1912, 40 L. D., 386.

Assignment of entry.—An unperfected desert-land entry in a reclamation project

which has been reduced to 160 acres by relinquishment of the excess area under this act, and has thereby become subject to the reclamation act and qualified to take water from the project, may be assigned in part under the act of March 28, 1908 (35 Stat., 52). George H. Upthegrove, 40 L. D., 622.

Issue of patent.—Under the desert-land act as modified by this act, final proof upon a desert entry within a reclamation project can not be held to have been made and completed until the payments required by said acts and the reclamation act have been made; and the department is without authority to accept or regard final proof in such cases as complete, or to issue patent thereon, until after such full compliance with the terms of payment imposed by the reclamation act. W. H. Skinner et al., 39 L. D., 619.

Where, however, the parties in interest are able to negotiate loans for amounts sufficient to pay the entire reclamation

charges upon an entry, contingent upon the prompt issuance of final certificate and patent, consideration of the final proof and issuance of final certificate and patent, in cases otherwise regular, may be expedited. *Idem.* See also Leroy W. Furnas, 38 L. D., 194.

Rule of approximation.—Rule applied to desert entries coming within the pro-

visions of the reclamation act that when the excess area in an entry above 160 acres is less than the deficiency would be if the smallest subdivision were excluded, it may be included in the entry; where it is greater it must be excluded. General Land Office Instructions of March 30, 1910, 38 L. D., 513.

TREATY WITH MEXICO.

CONVENTION BETWEEN THE UNITED STATES AND MEXICO, PROVIDING FOR THE EQUITABLE DISTRIBUTION OF THE WATERS OF THE RIO GRANDE FOR IRRIGATION PURPOSES.

[Signed at Washington, May 21, 1906; ratification advised by the Senate June 26, 1906; ratified by the President Dec. 26, 1906; ratified by Mexico Jan. 5, 1907; ratifications exchanged at Washington Jan. 16, 1907; proclaimed Jan. 16, 1907; 34 Stat., 2953.]

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA.

A PROCLAMATION.

Whereas a convention between the United States of America and the United States of Mexico, providing for the equitable distribution of the waters of the Rio Grande for irrigation purposes, and to remove all causes of controversy between them in respect thereto, was concluded and signed by their respective plenipotentiaries at Washington on the 21st day of May, 1906, the original of which convention, being in the English and Spanish languages, is word for word as follows:

The United States of America and the United States of Mexico being desirous to provide for the equitable distribution of the waters of the Rio Grande for irrigation purposes, and to remove all causes of controversy between them in respect thereto, and being moved by considerations of international comity, have resolved to conclude a convention for these purposes and have named as their plenipotentiaries:

The President of the United States of America, Elihu Root, Secretary of State of the United States; and

The President of the United States of Mexico, His Excellency Senor Don Joaquin D. Casasus, ambassador extraordinary and plenipotentiary of the United States of Mexico at Washington,

Who, after having exhibited their respective full powers, which were found to be in good and due form, have agreed upon the following articles:

ARTICLE 1. After the completion of the proposed storage dam near Engle, N. Mex., and the distributing system auxiliary thereto, and as soon as water shall be available in said system for the purpose, the United States shall deliver to Mexico a total of 60,000 acre-feet of water annually, in the bed of the Rio Grande at the point where the head works of the Acequia Madre, known as the Old Mexican Canal, now exist above the city of Juarez, Mexico.

ART. 2. The delivery of the said amount of water shall be assured by the United States and shall be distributed through the year in the same proportions as the water supply proposed to be furnished from the said irrigation system to lands in the United

States in the vicinity of El Paso, Tex., according to the following schedule, as nearly as may be possible:

	Acres lost per month.	Correspond- ing cubic feet of water.		Acres lost per month.	Correspond- ing cubic feet of water.
January.....	0	0	August.....	4,370	190,357,200
February.....	1,080	47,480,400	September.....	3,370	148,441,300
March.....	5,460	237,837,600	October.....	1,080	47,480,400
April.....	12,000	522,720,000	November.....	540	23,722,200
May.....	12,000	522,720,000	December.....	0	0
June.....	12,000	522,720,000			
July.....	8,180	356,320,800	Total for the year.....	60,000	2,613,600,000

In case, however, of extraordinary drought or serious accident to the irrigation system in the United States, the amount delivered to the Mexican Canal shall be diminished in the same proportion as the water delivered to lands under said irrigation system in the United States.

ART. 3. The said delivery shall be made without cost to Mexico, and the United States agrees to pay the whole cost of storing the said quantity of water to be delivered to Mexico, of conveying the same to the international line, of measuring the said water, and of delivering it in the river bed above the head of the Mexican Canal. It is understood that the United States assumes no obligation beyond the delivering of the water in the bed of the river above the head of the Mexican Canal.

ART. 4. The delivery of water as herein provided is not to be construed as a recognition by the United States of any claim on the part of Mexico to the said waters; and it is agreed that in consideration of such delivery of water Mexico waives any and all claims to the waters of the Rio Grande for any purpose whatever between the head of the present Mexican Canal and Fort Quitman, Tex., and also declares fully settled and disposed of, and hereby waives, all claims heretofore asserted or existing, or that may hereafter arise, or be asserted, against the United States on account of any damages alleged to have been sustained by the owners of land in Mexico by reason of the diversion by citizens of the United States of waters of the Rio Grande.

ART. 5. The United States in entering into this treaty does not thereby concede, expressly or by implication, any legal basis for any claims heretofore asserted or which may be hereafter asserted by reason of any losses incurred by the owners of land in Mexico due or alleged to be due to the diversion of the waters of the Rio Grande within the United States; nor does the United States in any way concede the establishment of any general principle or precedent by the concluding of this treaty. The understanding of both parties is that the arrangement contemplated by this treaty extends only to the portion of the Rio Grande which forms the international boundary from the head of the Mexican Canal down to Fort Quitman, Tex., and in no other case.

ART. 6. The present convention shall be ratified by both contracting parties in accordance with their constitutional procedure, and the ratifications shall be exchanged at Washington as soon as possible.

In witness whereof the respective plenipotentiaries have signed the convention, both in the English and Spanish languages, and have thereunto affixed their seals.

Done in duplicate at the city of Washington this 21st day of May, 1906.

ELIHU ROOT. [SEAL.]
JOAQUIN D. CASASUS. [SEAL.]

And whereas the said convention has been duly ratified on both parts, and the ratifications of the two Governments were exchanged in the city of Washington on the 16th day of January, 1907:

Now, therefore, be it known that I, Theodore Roosevelt, President of the United States of America, have caused the said convention to be made public, to the end that the same and every article and clause thereof may be observed and fulfilled with good faith by the United States and the citizens thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the United States of America to be affixed.

Done at the city of Washington, this 16th day of January, in the year of our Lord 1907, and of the independence of the United States of America the one hundred and thirty-first.

[SEAL.]

THEODORE ROOSEVELT.

By the President:

ELIHU ROOT,

Secretary of State.

EMPLOYMENT OF INDIAN LABOR, HIRING OF INDIAN PROPERTY, CONVEYANCE OF INDIAN LANDS, AND IRRIGATION IN PIMA AND BLACKFEET INDIAN RESERVATIONS.

(Extracts from) An act making appropriations for the current and contingent expenses of the Indian Department, for fulfilling treaty stipulations with various Indian tribes, and for other purposes, for the fiscal year ending June thirtieth, nineteen hundred and eight. (Act Mar. 1, 1907, ch. 223, § 4 Stat., 101A.)

* * * * *

[Employment of Indian labor and hiring of Indian property—Exemption.] That as far as practicable Indian labor shall be employed and purchase in the open market made from Indians, under the direction of the Secretary of the Interior. And the employment of such Indians and the hiring of their property, in connection with the construction of any irrigation project under the Reclamation Service, shall be exempt from the provisions of sections thirty-seven hundred and nine and thirty-seven hundred and forty-four, Revised Statutes. [34 Stat., 1015.]

* * * * *

[Conveyance of lands by noncompetent Indians.] That any non-competent Indian to whom a patent containing restrictions against alienation has been issued for an allotment of land in severalty, under any law or treaty, or who may have an interest in any allotment by inheritance, may sell or convey all or any part of such allotment or such inherited interest on such terms and conditions and under such rules and regulations as the Secretary of the Interior may prescribe, and the proceeds derived therefrom shall be used for the benefit of the allottee or heir so disposing of his land or interest, under the supervision of the Commissioner of Indian Affairs; and any conveyance made hereunder and approved by the Secretary of the Interior shall convey full title to the land or interest so sold, the same as if fee-simple patent had been issued to the allottee. [34 Stat., 1018.]

* * * * *

See act of June 21, 1906, 34 Stat., 325,
as to sale of lands allotted to Indians.

* * * * *

See act of May 29, 1908, 35 Stat., 444,
regarding patents in fee to purchasers of
Indian lands.

[Irrigation for Pima Indians from Salt River project.] That the Secretary of the Interior may, in his discretion, use such part of the \$300,000 heretofore appropriated for an irrigation system for the Pima Indians in the payment of such Indians' proportionate part of

the construction of the Salt River project, and such funds may be transferred to the reclamation fund, to be expended by that service in accordance with its rules and regulations; the Indians to receive a credit upon the reclamation charge assessed against their lands under the Salt River project for the amount so transferred. [34 Stat., 1022.]

* * * * *

[Blackfeet lands withdrawn for irrigation projects—Sale of undisposed of lands—Maximum sale to one person.] That if, after the approval of the classification and appraisal, as provided herein, there shall be found lands within the limits of the reservation under irrigation projects deemed practicable under the provisions of the act of Congress approved June seventeenth, nineteen hundred and two, known as the reclamation act, said lands shall be subject to withdrawal and be disposed of under the provisions of said act, and settlers shall pay, in addition to the cost of construction and maintenance provided therein, the appraised value, as provided in this act, to the proper officers, to be covered into the Treasury of the United States to the credit of the Indians: *Provided, however,* That all lands hereby opened to settlement remaining undisposed of at the end of five years from the taking effect of this act shall be sold to the highest bidder for cash, at not less than \$1.25 per acre, under rules and regulations prescribed by the Secretary of the Interior; and any lands remaining unsold ten years after said lands shall have been opened to entry shall be sold to the highest bidder for cash without regard to the minimum limit above stated: *Provided,* That not more than six hundred and forty acres of land shall be sold to any one person or company. [34 Stat., 1037.]

* * * * *

IRRIGATION OF INDIAN LANDS.

(Extract from) An act making appropriations for the current and contingent expenses of the Indian Department, for fulfilling treaty stipulations with various Indian tribes, and for other purposes, for the fiscal year ending June 30, 1900. (Act Apr. 30, 1900, ch. 153, 35 Stat., 70.)

* * * * *

[Authority to arrange for reclamation of Indian lands—No lien or charge created against reserved lands—Limit of cost.] That in carrying out any irrigation project which may be undertaken under the provisions of the act of June seventeenth, nineteen hundred and two (Thirty-second Statutes, page three hundred and eighty-eight), known as the reclamation act, and which may make possible, and provide for, in connection with the reclamation of other lands the irrigation of all or any part of the irrigible lands heretofore included in allotments made to Indians under the fourth section of the general allotment act, the Secretary of the Interior be, and he hereby is, authorized to make such arrangement and agreement in reference thereto as said Secretary deems for the best interest of the Indians: *Provided*, That no lien or charge for construction, operation, or maintenance shall thereby be created against any such reserved lands: *And provided further*, That to meet the necessary cost of carrying out this legislation the Secretary of the Interior is authorized to expend, out of the sum appropriated in this act for irrigation, an amount not exceeding \$13,000. [35 Stat., 85.]

* * * * *

ASSIGNMENTS OF PAY BY FIELD EMPLOYEES.

(Extract from) An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1909, and for other purposes. (Act May 27, 1908, ch. 200, 35 Stat., 317.)

[Reclamation field employees may assign pay.] The Secretary of the Interior is hereby authorized to permit the employees of the Reclamation Service, while employed in the field, to make assignments of their pay under such regulations as he may prescribe. [35 Stat., 350.]

IRRIGATION OF LANDS IN FORT PECK INDIAN RESERVATION.

(Extracts from) An act for the survey and allotment of lands now embraced within the limits of the Fort Peck Indian Reservation, in the State of Montana, and the sale and disposal of all the surplus lands after allotment. (Act May 30, 1906, ch. 257, 35 Stat., 558.)

[Sec. 1. Survey of all lands in Fort Peck Indian Reservation—Examination for irrigable and coal lands—Projects—Reservation.] That the Secretary of the Interior be, and he is hereby, authorized and directed to cause to be surveyed all the lands embraced within the limits of the Fort Peck Indian Reservation, in the State of Montana, and to cause an examination of the lands within such reservation to be made by the Reclamation Service and by experts of the Geological Survey, and if there be found any lands which it may be deemed practicable to bring under an irrigation project, or any lands bearing lignite coal, the Secretary of the Interior is hereby authorized to construct such irrigation projects and reserve such lands as may be irrigable therefrom, or necessary for irrigation works, and also coal lands as may be necessary to the construction and maintenance of any such projects. [35 Stat., 558.]

* * * * *

Sec. 10. [Withdrawal and sale of irrigable lands—Proceeds credited to Indians.] That if, after the approval of the classification and appraisement, as provided herein, there shall be found lands within the limits of the reservation deemed practicable for irrigation projects deemed practicable under the provisions of the act of Congress approved June seventeenth, nineteen hundred and two, known as the reclamation act, said lands shall be subject to withdrawal and be disposed of under the provisions of said act, and settlers shall pay, in addition to the cost of construction and maintenance provided therein, the appraised value as provided in this act, to the proper officers, to be covered into the Treasury of the United States to the credit of the Indians. [35 Stat., 562.]

* * * * *

UINTAH INDIAN LANDS FOR STRAWBERRY VALLEY PROJECT.

(Extract from) An act making appropriations for the current and contingent expenses of the Bureau of Indian Affairs, for fulfilling treaty stipulations with various Indian tribes, and for other purposes, for the fiscal year ending June 30, 1911. (Act Apr. 4, 1910, ch. 140, 36 Stat., 209.)

* * * * *

[Payment to Uintah Indians from reclamation fund for lands withdrawn for Strawberry Valley project—Installments—Reimbursement.] That the Secretary of the Interior is hereby authorized to pay from the reclamation fund for the benefit of the Uintah Indians the sum of \$1.25 per acre for the lands in the former Uintah Indian Reservation, in the State of Utah, which were set apart by the President for reservoir and other purposes under the provisions of the act approved March third, nineteen hundred and five, chapter fourteen hundred and seventy-nine, and which were by the Secretary of the Interior withdrawn for irrigation works under the provisions of the reclamation act of June seventeenth, nineteen hundred and two, in connection with the reservoir for the Strawberry Valley project. Such payment shall be made in five annual installments, and the moneys paid shall be subject to the same disposition as the proceeds of the sales of lands in the former Indian reservation. All such payments shall be included in the cost of construction of said Strawberry Valley project to be reimbursed by the owners of lands irrigated therefrom, all receipts from said lands, as rentals or otherwise, being credited to the said owners. All right, title, and interest of the Indians in the said lands are hereby extinguished, and the title, management, and control thereof shall pass to the owners of the lands irrigated from said project whenever the management and operation of the irrigation works shall so pass under the terms of the reclamation act. [36 Stat., 285.] See 14 Comp. Dec., 49.

* * * * *

TREATY WITH GREAT BRITAIN REGARDING ST. MARY AND MILK RIVERS, MONT.

(Extract from) [Treaty between the United States and Great Britain relating to boundary waters between the United States and Canada. Signed at Washington, Jan. 11, 1900; ratification advised by the Senate, Mar. 3, 1900; ratified by the President, Apr. 1, 1910; ratified by Great Britain, Mar. 31, 1910; ratifications exchanged at Washington, May 5, 1910; proclaimed, May 13, 1910; 36 Stat., 2451.]

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA. A PROCLAMATION.

* * * * *

ART. 6. The high contracting parties agree that the St. Mary and Milk Rivers and their tributaries (in the State of Montana and the Provinces of Alberta and Saskatchewan) are to be treated as one stream for the purposes of irrigation and power, and the waters thereof shall be apportioned equally between the two countries, but in making such equal apportionment more than half may be taken from one river and less than half from the other by either country, so as to afford a more beneficial use to each. It is further agreed that in the division of such waters during the irrigation season, between the 1st of April and 31st of October, inclusive, annually, the United States is entitled to a prior appropriation of 500 cubic feet per second of the waters of the Milk River, or so much of such amount as constitutes three-fourths of its natural flow, and that Canada is entitled to a prior appropriation of 500 cubic feet per second of the flow of St. Mary River, or so much of such amount as constitutes three-fourths of its natural flow.

The channel of the Milk River in Canada may be used at the convenience of the United States for the conveyance, while passing through Canadian territory, of waters diverted from the St. Mary River. The provisions of article 2 of this treaty shall apply to any injury resulting to property in Canada from the conveyance of such waters through the Milk River.

The measurement and apportionment of the water to be used by each country shall from time to time be made jointly by the properly constituted reclamation officers of the United States and the properly constituted irrigation officers of His Majesty, under the direction of the International Joint Commission.

REAPPRAISEMENT OF UNSOLD TOWN LOTS.

An act providing for the reappraisal of unsold lots in town sites on reclamation projects, and for other purposes. (Act June 11, 1910, ch. 294, 36 Stat., 465.)

[Sec. 1. Reappraisal and sale of unsold lots within reclamation town sites.] That the Secretary of the Interior is hereby authorized, whenever he may deem it necessary, to reappraise all unsold lots within town sites on projects under the reclamation act heretofore or hereafter appraised under the provisions of the act approved April sixteenth, nineteen hundred and six, entitled "An act providing for the withdrawal from public entry of lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June seventeenth, nineteen hundred and two, and for other purposes," and the act approved June twenty-seventh, nineteen hundred and six, entitled "An act providing for the subdivision of lands entered under the reclamation act, and for other purposes"; and thereafter to proceed with the sale of such town lots in accordance with said acts. [36 Stat., 465.]

Sec. 2. [Terms of payment.] That in the sale of town lots under the provisions of the said acts of April sixteenth and June twenty-seventh, nineteen hundred and six, the Secretary of the Interior may, in his discretion, require payment for such town lots in full at time of sale or in annual installments, not exceeding five, with interest at the rate of six per centum per annum on deferred payments. [36 Stat., 466.]

See General Land Office Instructions, | September 13, 1910, 39 L. D., 202.

ASSIGNMENT OF RECLAMATION HOMESTEAD ENTRIES.

An act providing that entrymen for homesteads within reclamation projects may assign their entry upon satisfactory proof of residence, improvement, and cultivation for five years, the same as though said entry had been made under original homestead act. (Act June 28, 1910, ch. 357, 36 Stat., 592.)

[Sec. 1. Assignment of homestead entries within reclamation projects.] That from and after the filing with the Commissioner of the General Land Office of satisfactory proof of residence, improvement, and cultivation for the five years required by law, persons who have, or shall make, homestead entries within reclamation projects under the provisions of the act of June seventeenth, nineteen hundred and two, may assign such entries, or any part thereof, to other persons, and such assignees, upon submitting proof of the reclamation of the lands and upon payment of the charges apportioned against the same as provided in the said act of June seventeenth, nineteen hundred and two, may receive from the United States a patent for the lands: *Provided*, That all assignments made under the provisions of this act shall be subject to the limitations, charges, terms, and conditions of the reclamation act. [36 Stat., 592.]

See act of July 17, 1914, 38 Stat., 510, extending the provisions of this act to lands in the Flathead Indian irrigation project, Montana.

See also section 13, act of August 13, 1914, 38 Stat., 686, in reference to conforming entries to farm units.

See act of May 8, 1916, 39 Stat., 65, amending this section.

Assignment of portion of entry in excess of farm unit.—A settler on unsurveyed land in a school section, who, after survey and after withdrawal of the land under the reclamation act as susceptible of reclamation under an irrigation project, was permitted to make entry for the full area of 160 acres, must conform his entry to a farm unit, but is entitled under the provisions of this act to assign the remaining portion of his entry; and the rights acquired by such settlement and entry has the attachment of any rights to the land on behalf of the State under its school grant. *Sarah E. Allen*, 44 L. D., 391.

Where a homestead entry within a reclamation project was, after the submission of final proof, conformed to a farm unit and canceled on relinquishment as to the remainder, prior to the act of June 28, 1910, the entry will not be reinstated as to the canceled portion for the purpose of permitting the entryman to assign such portion under the provisions of that act. *Douglas Lytle*, 42 L. D., 197.

The act has no application to entries which prior thereto had been adjusted to farm units and canceled as to the residue, after due notice; and an attempted assignment under the act, of land so eliminated as residue is without authority of law and can not be recognized. *Dennis Bell*, 41 L. D., 394.

Where, in conforming a homestead entry, within a reclamation project to farm units, a legal subdivision thereof, not retained by the entryman, is, with other vacant land, embraced in a farm unit, the entryman can not thereafter, under the provisions of this act, assign

such tract as a legal subdivision, for the reason that the legal subdivision, as such, no longer exists, having been merged in the farm unit; nor can he make assignment under the act of the farm unit into which such legal subdivision has been merged, for the reason that the farm unit includes land not embraced in his original entry. Robert C. Newlon et al., 41 L. D., 422.

Where a homestead entry within a reclamation project was conformed to a farm unit and canceled as to the remainder, at a time when the entryman could not have made five-year proof, the entry will not thereafter be reinstated as to the canceled portion for the purpose of permitting the entryman to submit final five-year proof thereon with a view to assigning such portion under the provisions of the act of June 23, 1910. Alexander P. Jacobs, 40 L. D., 322.

Not limited to legal subdivisions.—The act of June 23, 1910, authorizing assignments of entries within reclamation projects, after the acceptance of final proof thereon, does not limit such assignments to legal subdivisions; and an entryman may thereunder assign his entry as a whole or "any part thereof." Blanche W. Peabody, 44 L. D., 219.

Must be according to farm units.—Where farm units have been established within a reclamation project, they become the smallest legal subdivisions subject to disposition, and assignments of lands within the project under the act of June 23, 1910, can thereafter be made only in accordance with such subdivisions. Sarah S. Long, 39 L. D., 297.

If fraudulent, may be annulled by Land Department.—The land department has jurisdiction to determine the truth of a charge that an assignment of a homestead entry within a reclamation project, under the act of June 23, 1910, was obtained by fraud, and if found to have been so obtained, to annul the assignment. Delano v. Messer et al., 44 L. D., 199.

Assignees limited to one farm unit.—To entitle one to take by assignment under the act of June 23, 1910, he must show that he has not acquired title to and is not

claiming any other farm unit or entry under the reclamation act. Sarah S. Long, 39 L. D., 297.

Must be qualified under homestead laws.—Assignments of homestead entries within reclamation projects under the act of June 23, 1910, may be made only to persons qualified to make entry under the general homestead laws, and subject to the limitations, charges, terms, and conditions of the reclamation act. Robert C. Newlon et al., 41 L. D., 421.

Not required to reside upon or near land.—An assignee under the act of June 23, 1910, of a homestead entry within a reclamation project, made under the provisions of the reclamation act, is not required to reside upon the land or in the vicinity thereof as a condition prerequisite to obtaining a patent and water right. Secretary's Instructions of April 2, 1914, 43 L. D., 456.

Married women.—A married woman, otherwise qualified, is competent to take an assignment of lands within a reclamation project under the act of June 23, 1910. Sadie A. Hawley, 43 L. D., 364. Robert C. Newlon, 41 L. D., 421, and Noah A. Snook et al., 41 L. D., 428, overruled in so far as in conflict.

A married woman may, under the act of June 23, 1910, take an assignment of a homestead entry made under the reclamation act, upon which satisfactory final proof has been made, showing residence and cultivation for the required time, but upon which not all of the water-right charges have been paid, provided the laws of the State or Territory in which the entry is located permit a married woman to purchase and hold real estate as a *femme sole*; but she will be required to show, in addition to the usual requirements in such cases, that the purchase is made with her own separate money, in which her husband has no interest or claim; that the assignment is not taken for the use or benefit of her husband, and that she has no agreement or understanding by which any interest therein will inure to his benefit; and that the water right thus sought by assignment, together with such other water rights as may be already held in

possession by such assignee, will not aggregate water rights for more than 160 acres of land, furnished under the reclamation act. Secretary's Instructions of February 21, 1911, 39 L. D., 504.

Minors.—Minors are not qualified to take by assignment farm units upon which reclamation charges have not been paid in full. Secretary's Instructions of February 1, 1916, 45 L. D., 22.

Aliens.—The act of June 23, 1910, authorizing assignments of homestead entries within reclamation projects after the submission of satisfactory final proof, does not limit such assignments to citizens of the United States; and assignment under that act may be made and patent issued to an alien, the rights thereby acquired depending upon the statutes of the State respecting the rights of aliens to acquire and hold real property. Secretary's Instructions of July 18, 1915, 44 L. D., 202.

Corporations.—To entitle a corporation to take an assignment of a portion of a reclamation entry under the act of June 23, 1910, it must show that it is not claiming any other farm unit or entry under the reclamation act, and that each of its stockholders is duly qualified to take an assignment under that act, notwithstanding the entryman from whom the corporation is seeking to take the assignment has complied with the provisions of the homestead law as to residence, improvement, and cultivation upon the land involved. Pleasant Valley Farm Co., 42 L. D., 253.

Miscellaneous.—General Land Office Circular of December 17, 1910, 39, L. D., 421, amending General Land Office Instructions of September 13, 1910, 39 L. D., 202.

Sections 35-43, inclusive, of General Reclamation Circular approved May 18, 1916, 45 L. D., 385.

ADVANCES TO THE RECLAMATION FUND.

An act to authorize advances to the "reclamation fund," and for the issue and disposal of certificates of indebtedness in reimbursement therefor, and for other purposes. (Act June 25, 1910, ch. 407, 36 Stat. 835.)

[Sec. 1. Advances to reclamation fund to complete projects—Not to exceed \$20,000,000—Appropriation—Reimbursement—Board of engineers to report upon projects—Approval by President—New projects not included.] That to enable the Secretary of the Interior to complete Government reclamation projects heretofore begun, the Secretary of the Treasury is authorized, upon request of the Secretary of the Interior, to transfer from time to time to the credit of the reclamation fund created by the act entitled "An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," approved June seventeenth, nineteen hundred and two, such sum or sums, not exceeding in the aggregate \$20,000,000, as the Secretary of the Interior may deem necessary to complete the said reclamation projects, and such extensions thereof as he may deem proper and necessary to the successful and profitable operation and maintenance thereof or to protect water rights pertaining thereto claimed by the United States, provided the same shall be approved by the President of the United States; and such sum or sums as may be required to comply with the foregoing authority are hereby appropriated out of any money in the Treasury not otherwise appropriated: *Provided*, That the sums hereby authorized to be transferred to the reclamation fund shall be so transferred only as such sums shall be actually needed to meet payments for work performed under existing law: *And provided further*, That all sums so transferred shall be reimbursed to the Treasury from the reclamation fund, as hereinafter provided: *And provided further*, That no part of this appropriation shall be expended upon any existing project until it shall have been examined and reported upon by a board of engineer officers of the Army, designated by the President of the United States, and until it shall be approved by the President as feasible and practicable and worthy of such expenditure; nor shall any portion of this appropriation be expended upon any new project. [36 Stat., 835.]

Sec. 2. [Issue of certificates of indebtedness authorized—Disposal—Aggregate limited—Exempt from taxation—Appropriation for preparing.] That for the purpose of providing the Treasury with funds

for such advances to the reclamation fund, the Secretary of the Treasury is authorized to issue certificates of indebtedness of the United States in such form as he may prescribe and in denominations of \$50, or multiples of that sum; said certificates to be redeemable at the option of the United States at any time after three years from the date of their issue and to be payable five years after such date, and to bear interest, payable semiannually, at not exceeding three per centum per annum; the principal and interest to be payable in gold coin of the United States. The certificates of indebtedness herein authorized may be disposed of by the Secretary of the Treasury at not less than par, under such rules and regulations as he may prescribe, giving all citizens of the United States an equal opportunity to subscribe therefor, but no commission shall be allowed and the aggregate issue of such certificates shall not exceed the amount of all advances made to said reclamation fund, and in no event shall the same exceed the sum of \$20,000,000. The certificates of indebtedness herein authorized shall be exempt from taxes or duties of the United States as well as from taxation in any form by or under State, municipal, or local authority; and a sum not exceeding one-tenth of one per centum of the amount of the certificates of indebtedness issued under this act is hereby appropriated, out of any money in the Treasury not otherwise appropriated, to pay the expense of preparing, advertising, and issuing the same. [36 Stat., 835.]

Sec. 3. [One-half of reclamation receipts to be paid into the Treasury.] That beginning five years after the date of the first advance to the reclamation fund under this act, fifty per centum of the annual receipts of the reclamation fund shall be paid into the general fund of the Treasury of the United States until payments so made shall equal the aggregate amount of advances made by the Treasury to said reclamation fund, together with interest paid on the certificates of indebtedness issued under this act and any expense incident to preparing, advertising, and issuing the same. [36 Stat., 836.]

Sec. 4. [Limitation on use of fund—Order of President required for new projects.] That all money placed to the credit of the reclamation fund in pursuance of this act shall be devoted exclusively to the completion of work on reclamation projects heretofore begun as hereinbefore provided, and the same shall be included with all other expenses in future estimates of construction, operation, or maintenance, and hereafter no irrigation project contemplated by said act of June seventeenth, nineteen hundred and two, shall be begun unless and until the same shall have been recommended by the Secretary of the Interior and approved by the direct order of the President of the United States. [36 Stat., 836.]

Sec. 5. [No entries allowed until announcement as to units, charges, and date water can be applied.] That no entry shall be hereafter made and no entryman shall be permitted to go upon lands reserved for irrigation purposes until the Secretary of the Interior shall have established the unit of acreage and fixed the water charges and the date when the water can be applied and made public announcement of the same. [36 Stat., 836.]

Amended by act of February 18, 1911, 36 Stat., 917. See notes thereunder.

Amended by section 10, act of August 13, 1914, 38 Stat., 686.

Purpose of act.—This act was designed to withhold lands within a reclamation project from entry of every character until public announcement of the date when the water could be applied. *Roberts v. Spencer*, 40 L. D., 306.

Existing rights not affected.—Existing entries are not affected by this act, and where settlements have been effected in good faith, prior to June 25, 1910, on lands embraced within second-form withdrawals, persons showing such settlement will be allowed to complete entry thereof in the manner and within the time provided by law. General Land Office Instructions of September 13, 1910, 39 L. D., 202.

A homestead entry of land within a reclamation project, allowed subsequent to this act, upon an application in all respects regular filed prior to the act, and upon which action was delayed only because of pressure of business in the local office, is not in violation of the provisions of this section. *Charles C. Conrad*, 39 L. D., 432.

Contests.—A successful contestant of an entry within a reclamation withdrawal is not barred of his preference right by this section. The section has the effect to postpone the exercise of such right until the project is so far completed that water can be applied to the land and the

Secretary of the Interior has made public announcement of that fact. *Joseph F. Gladioux*, 41 L. D., 286.

Where prior to the regulations of October 15, 1910 (39 L. D., 296), a contest was properly initiated, under then-existing laws and regulations, against an entry within a second-form withdrawal under the reclamation act, and the entry was canceled as a result of such contests after the passage of this act, either prior or subsequent to October 15, 1910, the contestant thereby acquired a preference right of entry to the lands involved, notwithstanding the limitations contained in this act, as to entries thereafter allowed for lands within second-form withdrawals, and notwithstanding the said regulations of October 15, 1910, which preference right he is entitled to exercise upon the lands again becoming subject to entry; but contests heretofore dismissed under said regulations will not be reopened where third parties have acquired rights under such adjudications. *Long v. Lee*, 41 L. D., 826.

See General Land Office Circular of October 15, 1910, regarding contests against entries embraced within reclamation withdrawals, 39 L. D., 296, amending circular of May 31, 1910, 38 L. D., 620. Also, see *Roberts v. Spencer*, 40 L. D., 306, and Secretary's Instructions, September 4, 1912, 41 L. D., 241.

See sections 1-4, inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

Sec. 6. [Former provision for expenditures repealed.] That section nine of said act of Congress, approved June seventeenth, nineteen hundred and two, entitled "An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," is hereby repealed. [36 Stat., 836.]

WITHDRAWALS IN INDIAN RESERVATIONS.

(Extracts from) An act to provide for determining the heirs of deceased Indians, for the disposition and sale of allotments of deceased Indians, for the leasing of all allotments, and for other purposes. (Act June 26, 1910, ch. 431, 36 Stat., 856.)

* * * * *

Sec. 13. [Indian reservations—Power, etc., sites may be reserved—Where no project authorized.] That the Secretary of the Interior be, and he is hereby, authorized, in his discretion, to reserve from location, entry, sale, allotment, or other appropriation any lands within any Indian reservation valuable for power or reservoir sites, or which may be necessary for use in connection with any irrigation project heretofore or hereafter to be authorized by Congress: *Provided*, That if no irrigation project shall be authorized prior to the opening of any Indian reservation containing such power or reservoir sites the Secretary of the Interior may, in his discretion, reserve such sites pending future legislation by Congress for their disposition, and he shall report to Congress all reservations made in conformity with this act. [36 Stat., 858.]

Sec. 14. [Trust allotments—Canceling patents in power sites, etc.—Reimbursing Indians—Lieu allotments.] That the Secretary of the Interior, after notice and hearing, is hereby authorized to cancel trust patents issued to Indian allottees for allotments within any power or reservoir site and for allotments or such portions of allotments as are located upon or include lands set aside, reserved, or required within any Indian reservation for irrigation purposes under authority of Congress: *Provided*, That any Indian allottee whose allotment shall be so canceled shall be reimbursed for all improvements on his canceled allotment, out of any moneys available for the construction of the irrigation project for which the said power or reservoir site may be set aside: *Provided further*, That any Indian allottee whose allotment, or part thereof, is so canceled shall be allotted land of equal value within the area subject to irrigation by any such project. [36 Stat., 859.]

* * * * *

LEAVE OF ABSENCE TO HOMESTEADERS.

An act granting leaves of absence to homesteaders on lands to be irrigated under the provisions of the act of June 17, 1892. (Act June 25, 1910, ch. 422, 36 Stat., 864.)

[Sec. 1. Certain homesteaders allowed leave until water is turned on—Required residence not lessened.] That all qualified entrymen who have heretofore made bona fide entry upon lands proposed to be irrigated under the provisions of the act of June seventeenth, nineteen hundred and two, known as the national irrigation act, may, upon application and a showing that they have made substantial improvements, and that water is not available for the irrigation of their said lands, within the discretion of the Secretary of the Interior, obtain leave of absence from their entries until water for irrigation is turned into the main irrigation canals from which the land is to be irrigated: *Provided*, That the period of actual absence under this act shall not be deducted from the full time of residence required by law. [36 Stat., 864.]

Residence.—While this act was intended to relieve entrymen who had made entry for lands within a reclamation project prior to the passage of said act, and prior to the applying of water by the project, from the necessity of maintaining residence upon the land "until water for irrigation is turned into the main irrigation canal from which the land is to be irrigated," it condones the prior failure of the entryman to maintain residence where water has not been available for irrigation of the land, and suspends the running of the seven-year limitation of the life of the entry by allowing the period of residence to commence from the time when the water is made available. *Roberts v. Spencer*, 40 L. D., 306.

By virtue of the acts of June 25, 1910 (36 Stat., 864), and April 30, 1912 (37 Stat., 105), one who made entry of lands within a reclamation project prior to the act of June 25, 1910, and in good faith established residence, is not subject to contest for failure to maintain residence prior to the time water is available for irrigation of the land, provided residence is established and application for water right filed within ninety days after the

issuance of public notice fixing the date when water will be available; and where an entrywoman marries after establishing residence, and removes to the unperfected homestead entry of her husband, she does not thereby forfeit the protection accorded by these acts, where after final proof upon her husband's claim she returns and reestablishes residence upon her own claim within the time fixed therefor. *Jensen v. Kenoyer*, 42 L. D., 526.

This act applies to all bona fide qualified entrymen who made entry prior to the act and have made substantial improvements, regardless of whether they have established and maintained residence. *John William Roatcap*, 42 L. D., 422.

Seven-year period suspended.—By virtue of the provisions of this act, a homestead entry within a reclamation project is not limited to the seven-year period fixed for consummation of ordinary homestead entries elsewhere on the public domain, but may be completed within the time fixed in the public notice for compliance with the requirements of the reclamation act, unless the project be abandoned, notice of which abandon-

ment will terminate the suspension of the seven-year period, and thereafter the entry will fall within the general class of homestead entries and be governed by the general homestead laws. John H. Haynes, 40 L. D., 291.

Application for leave.—Applications for leave of absence should be in the form of an affidavit, duly corroborated by two witnesses, contain a specific description of the land, show the good faith of the applicant, and set forth in detail the character, extent, and approximate value of the improvements placed on the lands, which must be such as to satisfy the requirement of the law that the entryman has made substantial improvements, and must show, as a matter of fact, that water is not available for the irrigation thereof. General Land Office Instructions of September 13, 1910, 39 L. D., 202.

Length of absence.—Leave of absence will be granted until such time as water for irrigation is turned into the main irrigation canals from which the land is to be irrigated, or, in the event that the project is abandoned by the Government, until the

date of notice of such abandonment and the restoration to the public domain of the lands embraced in the entry. General Land Office Instructions of September 13, 1910, 39 L. D., 202.

Effect of granting leave of absence.—Attention is directed to the provision that "the period of actual absence shall not be deducted from the full time of residence required by law." The effect of the granting of leave of absence under this act is to protect the entry from contest for abandonment and, by the necessary implication of the act, the period of seven years within which the entryman is required to submit final five-year proof will be extended and the entry will not be subject to cancellation for failure to submit proof until seven years from the date of entry, exclusive of the period for which leave of absence may be granted. General Land Office Instructions of September 13, 1910, 39 L. D., 202.

See sections 31-34, inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D., 335.

SALE OF LANDS ACQUIRED UNDER THE RECLAMATION ACT.

An act to provide for the sale of lands acquired under the provisions of the reclamation act and which are not needed for the purposes of that act. (Act Feb. 2, 1911, ch. 22, 36 Stat., 895.)

[Sec. 1. Sale of lands not needed for irrigation works—Appraisal—Sale at public auction.] That whenever in the opinion of the Secretary of the Interior any lands which have been acquired under the provisions of the act of June seventeenth, nineteen hundred and two (Thirty-second Statutes, page three hundred and eighty-eight), commonly called the "reclamation act," or under the provisions of any act amendatory thereof or supplementary thereto, for any irrigation works contemplated by said reclamation act are not needed for the purposes for which they were acquired, said Secretary of the Interior may cause said lands, together with the improvements thereon, to be appraised by three disinterested persons, to be appointed by him, and thereafter to sell the same for not less than the appraised value at public auction to the highest bidder, after giving public notice of the time and place of sale by posting upon the land and by publication for not less than thirty days in a newspaper of general circulation in the vicinity of the land. [36 Stat., 895.]

Sec. 2. [Conveyance of title—Limitation of 160 acres to a person.] That upon payment of the purchase price, the Secretary of the Interior is authorized by appropriate deed to convey all the right, title, and interest of the United States of, in, and to said lands to the purchaser at said sale, subject, however, to such reservations, limitations, or conditions as said Secretary may deem proper: *Provided*, That not over one hundred and sixty acres shall be sold to any one person. [36 Stat., 895.]

Sec. 3. [Proceeds to credit of irrigation project.] That the moneys derived from the sale of such lands shall be covered into the reclamation fund and be placed to the credit of the project for which such lands had been acquired. [36 Stat., 895.]

WITHDRAWAL OF PUBLIC NOTICES.

An act to authorize the Secretary of the Interior to withdraw public notices issued under section 4 of the reclamation act, and for other purposes.¹ (Act Feb. 13, 1911, ch. 49, 36 Stat., 902.)

[Sec. 1. Withdrawal of public notices—Modification and abrogation of water-right applications and contracts.] That the Secretary of the Interior may, in his discretion, withdraw any public notice heretofore issued under section four of the reclamation act of June seventeen, nineteen hundred and two, and he may agree to such modification of water-right applications heretofore duly filed or contracts with water users' associations and others, entered into prior to the passage of this act, as he may deem advisable, or he may consent to the abrogation of such water-right applications and contracts, and proceed in all respects as if no such notice had been given. [36 Stat., 902.]

¹ Popularly known as the Curtis Act, being so named for Senator Charles Curtis, of Kansas.

RELINQUISHMENT OF SECOND-FORM LANDS

An act to amend section 5 of the act of Congress of June 25, 1910, entitled "An act to authorize advances to the 'reclamation fund,' and for the issue and disposal of certificates of indebtedness in reimbursement therefor, and for other purposes. (Act Feb. 18, 1911, ch. 111, 36 Stat., 917.)

[Sec. 1. Entries prior to June 25, 1910—Disposal of relinquished lands.] That section five of an act entitled "An act to authorize advances to the 'reclamation fund,' and for the issue and disposal of certificates of indebtedness in reimbursement therefor, and for other purposes," approved June twenty-fifth, nineteen hundred and ten (Thirty-sixth Statutes at Large, page eight hundred and thirty-five), be, and the same hereby is, amended as follows:

"Sec. 5. That no entry shall be hereafter made and no entryman shall be permitted to go upon lands reserved for irrigation purposes until the Secretary of the Interior shall have established the unit of acreage and fixed the water charges and the date when the water can be applied and made public announcement of the same: *Provided*, That where entries made prior to June twenty-fifth, nineteen hundred and ten, have been or may be relinquished in whole or in part, the lands so relinquished shall be subject to settlement and entry under the homestead law as amended by an Act entitled 'An act appropriating the receipts from the sale and disposal of the public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands,' approved June seventeenth, nineteen hundred and two (Thirty-second Statutes at Large, page three hundred and eighty-eight)." [36 Stat., 917.]

Amended by section 10, act of August 13, 1914, 38 Stat., 686.

See section 5, act of June 25, 1910, 36 Stat., 835, and notes thereunder.

Entries affected.—This act applies to all entries embracing lands reserved for irrigation purposes made prior to June 25, 1910, which have been or may be relinquished, where the entrymen, by reason of the provisions of the act of June 25, 1910 (36 Stat., 835), prohibiting entries for such lands until public notice of water charges, etc., has been issued, have been or may be prevented from realizing the value of the improvements placed by them on their entries by selling such improvements to others desiring to make entry for the lands upon

relinquishment of the existing entries therefor. Fredrek Steebner, 43 L. D., 263.

The provision that upon relinquishment of an entry within a reclamation withdrawal the lands so relinquished shall be subject to homestead settlement and entry under the reclamation act, has reference only to lands covered by second-form withdrawals, and has no application to lands withdrawn under the first form. Annie G. Parker, 40 L. D., 406, Ernest Farrington, 40 L. D., 627, Robert H. Williams, 41 L. D., 68.

The act contemplates only entries legally made prior to the act of June 25, 1910, and afterwards relinquished, and has no application where the former entry

was one in form only and in legal contemplation a mere nullity, having been erroneously allowed while the lands were embraced in a first form withdrawal under the reclamation act. *Annie G. Parker*, 40 L. D., 406.

The act has no application where cancellation of the entry was the result of a contest and not of a relinquishment. *Fred V. Hook*, 41 L. D., 67.

It is applicable only to entries under the reclamation act and can not be invoked as to entries canceled prior to the reclamation act or made before and afterwards canceled for fraud. *Ethel M. Catron*, 42 L. D., 7.

It applies only to entries of record next previous to the passage of the act of June 25, 1910, and can not be invoked upon the basis of a relinquished entry preceding the entry of record at the date of the passage of the act. *Fred Anderson*, 45 L. D., 504.

Effect of relinquishment.—Upon relinquishment of an entry made prior to June 25, 1910, within a reclamation withdrawal, the lands so relinquished became subject generally to settlement and entry under the homestead law, subject to the provisions of the reclamation act, and there is no authority for further limiting the right of entry of such lands. *Lena Hektner*, 48 L. D., 463.

Lands uncovered by conformation not relinquished.—Where a homestead entry covering lands within a reclamation with-

drawal is conformed to a farm unit, the lands thereby uncovered are not relinquished within the meaning of this act, and are not subject to entry thereunder. *Robert H. Williams*, 41 L. D., 69.

Canceled entry revived.—This homestead entry of lands within a reclamation withdrawal, allowed after the entryman had in good faith purchased the relinquishment of a prior entry for the same land under this act, is permitted to remain intact, notwithstanding the prior entry had been canceled though not noted as canceled upon the records of the local office at the time the relinquishment was filed and the entry in question allowed, it appearing that the transaction was in entire good faith and neither the prior entryman, the present entryman, nor the local officers had actual knowledge of the cancellation at that time. *Fredrek Steebner*, 43 L. D., 263.

The rule that no application to enter shall be received until proper notation of the cancellation of a prior entry is made upon the records of the local land office was adopted for administrative purposes and designed primarily for the protection of the rights of contestants and will not be applied with the same strictness in cases solely between the Government and an entryman or an applicant for entry. *Idem*.

See sections 1-4, inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

DISPOSITION OF SURPLUS WATERS AND COOPERATION IN CONSTRUCTION.

An act to authorize the Government to contract for impounding, storing, and carriage of water, and to cooperate in the construction and use of reservoirs and canals under reclamation projects, and for other purposes.¹ (Act Feb. 21, 1911, ch. 141, 36 Stat., 925.)

[Sec. 1. Sale of excess water—Distribution to individual users—Restriction—Fixing of charges—Limitation on price to water users.] That whenever in carrying out the provisions of the reclamation law, storage or carrying capacity has been or may be provided in excess of the requirements of the lands to be irrigated under any project, the Secretary of the Interior, preserving a first right to lands and entrymen under the project, is hereby authorized, upon such terms as he may determine to be just and equitable, to contract for the impounding, storage, and carriage of water to an extent not exceeding such excess capacity with irrigation systems operating under the act of August eighteenth, eighteen hundred and ninety-four, known as the Carey Act, and individuals, corporations, associations, and irrigation districts organized for or engaged in furnishing or in distributing water for irrigation. Water so impounded, stored, or carried under any such contract shall be for the purpose of distribution to individual water users by the party with whom the contract is made: *Provided, however,* That water so impounded, stored, or carried shall not be used otherwise than as prescribed by law as to lands held in private ownership within Government reclamation projects. In fixing the charges under any such contract for impounding, storing, or carrying water for any irrigation system, corporation, association, district, or individual, as herein provided, the Secretary shall take into consideration the cost of construction and maintenance of the reservoir by which such water is to be impounded or stored and the canal by which it is to be carried, and such charges shall be just and equitable. as to water users under the Government project. No irrigation system, district, association, corporation, or individual so contracting shall make any charge for the storage, carriage, or delivery of such water in excess of the charge paid to the United States except to such extent as may be reasonably necessary to cover cost of carriage and delivery of such water through their works. [36 Stat., 925.]

Contract to supply water.—Under the provisions of the reclamation act, June 17, 1902, and the Warren Act, February 21, 1911, the Secretary of the Interior is authorized and has the power to contract with an irrigation district for supplying water to such district, or partially supplying it with water, for the irrigation of the lands therein and for the drainage of other lands within such district. *Pioneer Irrigation District v. Stone*, 23 Idaho, 344, 130 Pac., 382. Followed in *Hillcrest Irrigation District v. Brose*, 23 Idaho, 615, 133 Pac., 663, and *Nampa and Meridian Irrigation District v. Petrie et al.*, 153 Pac., 425.

¹ Popularly known as the Warren Act, being so named for Senator Francis E. Warren, of Wyoming.

Sec. 2. [Cooperation with water users for reservoirs—Title to works—Limit on water furnished—Water rights of United States not enlarged.] That in carrying out the provisions of said reclamation act and acts amendatory thereof or supplementary thereto, the Secretary of the Interior is authorized, upon such terms as may be agreed upon, to cooperate with irrigation districts, water users associations, corporations, entrymen or water users for the construction or use of such reservoirs, canals, or ditches as may be advantageously used by the Government and irrigation districts, water users associations, corporations, entrymen or water users for impounding, delivering, and carrying water for irrigation purposes: *Provided*, That the title to and management of the works so constructed shall be subject to the provisions of section six of said act: *Provided further*, That water shall not be furnished from any such reservoir or delivered through any such canal or ditch to any one landowner in excess of an amount sufficient to irrigate one hundred and sixty acres: *Provided*, That nothing contained in this act shall be held or construed as enlarging or attempting to enlarge the right of the United States, under existing law, to control the waters of any stream in any State. [36 Stat., 926.]

Sec. 3. [Moneys received covered into reclamation fund.] That the moneys received in pursuance of such contracts shall be covered into the reclamation fund and be available for use under the terms of the reclamation act and the acts amendatory thereof or supplementary thereto. [36 Stat., 926.]

LEASE OF SURPLUS POWER.

An act to amend an act entitled "An act providing for the withdrawal from public entry of lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June 17, 1902, and for other purposes," approved April 17, 1902. (Act Feb. 24, 1911, ch. 186, 36 Stat., 930.)

[Sec. 1. Development and lease of surplus power—Proceeds—Impairment of projects prohibited—Longer lease permitted on Rio Grande project.] That section five of an act entitled "An act providing for the withdrawal from public entry of lands needed for town-site purposes in connection with irrigation projects under the reclamation act of June seventeenth, nineteen hundred and two, and for other purposes," approved April sixteenth, nineteen hundred and six, be amended so as to read as follows:

"SEC. 5. That whenever a development of power is necessary for the irrigation of lands, under any project undertaken under the said reclamation act, or an opportunity is afforded for the development of power under any such project, the Secretary of the Interior is authorized to lease for a period not exceeding ten years, giving preference to municipal purposes, any surplus power or power privilege, and the money derived from such leases shall be covered into the reclamation fund and be placed to the credit of the project from which such power is derived: *Provided*, That no lease shall be made of such surplus power or power privileges as will impair the efficiency of the irrigation project: *Provided further*, That the Secretary of the Interior is authorized, in his discretion, to make such a lease in connection with Rio Grande project in Texas and New Mexico for a longer period not exceeding fifty years, with the approval of the water users' association or associations under any such project, organized in conformity with the rules and regulations prescribed by the Secretary of the Interior in pursuance of section six of the reclamation act approved June seventeenth, nineteen hundred and two." [36 Stat., 930.]

RELIEF OF CERTAIN RECLAMATION HOMESTEAD ENTRYMEN.

An act for the relief of homestead entrymen under the reclamation projects in the United States. (Act Apr. 30, 1912, ch. 100, 37 Stat., 105.)

[Sec. 1. Homesteaders under reclamation act allowed time to reestablish residence after water is available—Period of absence not credited.] That no qualified entryman who prior to June twenty-fifth, nineteen hundred and ten, made bona fide entry upon lands proposed to be irrigated under the provisions of the act of June seventeenth, nineteen hundred and two, the national reclamation law, and who established residence in good faith upon the lands entered by him, shall be subject to contest for failure to maintain residence or make improvements upon his land prior to the time when water is available for the irrigation of the lands embraced in his entry, but all such entrymen shall, within ninety days after the issuance of the public notice required by section four of the reclamation act, fixing the date when water will be available for irrigation, file in the local land office a water-right application for the irrigable lands embraced in his entry, in conformity with the public notice and approved farm-unit plat for the township in which his entry lies, and shall also file an affidavit that he has reestablished his residence on the land with the intention of maintaining the same for a period sufficient to enable him to make final proof: *Provided*, That no such entryman shall be entitled to have counted as part of the required period of residence any period of time during which he was not actually upon the said land prior to the date of the notice aforesaid, and no application for the entry of said lands shall be received until after the expiration of the ninety days after the issuance of notice within which the entryman is hereby required to reestablish his residence and apply for water right. [37 Stat., 105.]

See General Land Office Instructions of | L. D., 115.
July 25, 1912, in reference to this act, 41 |

ASSIGNMENT OF DESERT-LAND ENTRIES.

An act relating to partial assignments of desert-land entries within reclamation projects made since March 28, 1908. (Act July 24, 1912, ch. 251, 37 Stat., 200.)

[Sec. 1. Desert-land entries within reclamation projects may be assigned—To conform to farm units.] That a desert-land entry within the exterior limits of a Government reclamation project may be assigned in whole or in part under the act of March twenty-eighth, nineteen hundred and eight (Thirty-fifth Statutes at Large, page fifty-two), and the benefits and limitations of the act of June twenty-seventh, nineteen hundred and six (Thirty-fourth Statutes at Large, page five hundred and twenty), shall apply to such desert-land entryman and his assignees: *Provided*, That all such assignments shall conform to and be in accordance with farm units to be established by the Secretary of the Interior upon the application of the desert-land entryman. All such assignments heretofore made in good faith shall be recognized under this act. [37 Stat., 200.]

Assignment of entries.—Where a desert-land entry within a reclamation project is assigned in part under this act the entry should be subdivided into farm units; but where such an entry is assigned in its entirety the establishment of a farm

unit is unnecessary. Catherine Baart, 44 L. D., 388.

See sections 116-128, inclusive, General Reclamation Circular, approved May 18, 1916, 45 L. D., 385.

PATENTS ON RECLAMATION ENTRIES, ETC.

An act providing for patents on reclamation entries, and for other purposes. (Act Aug. 9, 1912, ch. 278, 37 Stat., 265.)

[Sec. 1. Homesteaders under reclamation act to receive patents when conditions completed—Purchasers of water-right certificates—Payment in full required.] That any homestead entryman under the act of June seventeenth, nineteen hundred and two, known as the reclamation act, including entrymen on ceded Indian lands, may, at any time after having complied with the provisions of law applicable to such lands as to residence, reclamation, and cultivation, submit proof of such residence, reclamation, and cultivation, which proof, if found regular and satisfactory, shall entitle the entryman to a patent, and all purchasers of water-right certificates on reclamation projects shall be entitled to a final water-right certificate upon proof of the cultivation and reclamation of the land to which the certificate applies, to the extent required by the reclamation act for homestead entrymen: *Provided*, That no such patent or certificate shall issue until all sums due the United States on account of such land or water right at the time of issuance of patent or certificate have been paid. [37 Stat., 265.]

See act of July 17, 1914, 38 Stat., 510, extending the provisions of this act to lands in the Flathead Indian irrigation project, Montana.

Water-right certificates.—The terms "water-right certificate" and "certificate" as used in this section relate to final water-right certificates issued in connection with water rights for lands held in private ownership. *William E. Borah*, 42 L. D., 207.

The fact that remunerative crops may be raised without irrigation upon land lying within a reclamation project is not sufficient ground for exclusion of such land from the project; and final certificate should not issue upon an entry embracing such land until all the sums due the United States under the reclamation act, on account of land or water right at the time of issuance of the certificate, shall have been paid. *Lewis Wilson*, 42 L. D., 8.

Payment of charges.—In view of the proviso of this section there is no room for application of the doctrine of relation and holding payment of the charge due at the time of making final proof as meeting the requirements of the act. *William E. Borah*, 42 L. D., 207.

Taxation of land within reclamation project.—A patent to lands within a reclamation project issued to a homestead entryman under act of August 9, 1912 (37 Stat., 265), on proof of compliance with the provisions of law as to residence, reclamation, and irrigation, conveys a legal title, the Government reserving only a prior lien on the land and appurtenant water rights as security for the payment of all sums due or to become due on such water rights, and such lands are taxable by the State; the lien of the tax, however, being subject to the prior lien reserved by the Government. Homestead entrymen on such lands who have

made proof of compliance with the general homestead laws, but have not fully complied with the additional requirements of the reclamation act as to reclamation and irrigation, have a vested interest which may be sold, mortgaged, and inherited and which also is subject to local taxation. Generally speaking, one who has the right to real property and is not excluded from its use and enjoy-

ment should not be permitted to use the legal title of the Government to avoid his just share of taxation. *United States v. Canyon County, Idaho, et al.*, 232 Fed., 985. See also *Cheney v. Minidoka County*, 26 Idaho, 471, 144 Pac., 343.

To the contrary, see *Law Notes, Reclamation Record*, 1915, p. 554; *Law Notes, Reclamation Record*, 1916, p. 65.

Sec. 2. [First lien on land reserved to United States—Title forfeited upon default of payment—Redemption within one year—Sale after failure to redeem—United States may bid in.] That every patent and water-right certificate issued under this act shall expressly reserve to the United States a prior lien on the land patented or for which water right is certified, together with all water rights appurtenant or belonging thereto, superior to all other liens, claims, or demands whatsoever for the payment of all sums due or to become due to the United States or its successors in control of the irrigation project in connection with such lands and water rights.

Upon default of payment of any amount so due title to the land shall pass to the United States free of all encumbrance, subject to the right of the defaulting debtor or any mortgagee, lien holder, judgment debtor, or subsequent purchaser to redeem the land within one year after the notice of such default shall have been given by payment of all moneys due, with eight per centum interest and cost. And the United States, at its option, acting through the Secretary of the Interior, may cause land to be sold at any time after such failure to redeem, and from the proceeds of the sale there shall be paid into the reclamation fund all moneys due, with interest as herein provided, and costs. The balance of the proceeds, if any, shall be the property of the defaulting debtor or his assignee: *Provided*, That in case of sale after failure to redeem under this section the United States shall be authorized to bid in such land at not more than the amount in default, including interest and costs. [*97 Stat., 206.*]

Sec. 3. [Certificate of final payment—Single holdings limited—Excess acquired by descent, etc.—Forfeiture of prohibited excess.] That upon full and final payment being made of all amounts due on account of the building and betterment charges to the United States or its successors in control of the project, the United States or its successors, as the case may be, shall issue upon request a certificate certifying that payment of the building and betterment charges in full has been made and that the lien upon the land has been so far satisfied and is no longer of any force or effect except the lien for annual charges for operation and maintenance: *Provided*, That no person shall at any one time or in any manner, except as hereinafter

otherwise provided, acquire, own, or hold irrigable land for which entry or water-right application shall have been made under the said reclamation act of June seventeenth, nineteen hundred and two, and acts supplementary thereto and amendatory thereof, before final payment in full of all installments of building and betterment charges shall have been made on account of such land in excess of one farm unit as fixed by the Secretary of the Interior as the limit of area per entry of public land or per single ownership of private land for which a water right may be purchased respectively, nor in any case in excess of one hundred and sixty acres, nor shall water be furnished under said acts nor a water right sold or recognized for such excess; but any such excess land acquired at any time in good faith by descent, by will, or by foreclosure of any lien may be held for two years and no longer after its acquisition; and every excess holding prohibited as aforesaid shall be forfeited to the United States by proceedings instituted by the Attorney General for that purpose in any court of competent jurisdiction; and this proviso shall be recited in every patent and water-right certificate issued by the United States under the provisions of this act. [37 Stat., 266.]

Limitations as to lands and water rights.—Under the proviso to this section no person shall, at any one time, acquire or own a water right, or be furnished water on account of a water right acquired from the United States, in excess of such quantity as may be necessary for the proper irrigation of one farm unit, as fixed by the Secretary of the Interior, unless all installments contracted to be paid on the additional supply to be purchased shall first be paid in full, and the water right purchased for the lands in excess of one unit shall be limited to a supply sufficient for 160 acres. *Amaziah Johnson*, 42 L. D., 542.

The limitations in this section as to the area of lands for which water right may be acquired or owned by any one person have reference to irrigable lands only. *Idem*.

No one can at the same time hold and obtain water rights for both a farm unit

of public land and a tract of privately owned land unless the installments on water right, either for the farm unit or for the private lands not exceeding 160 acres, have been paid in full. *Keebaugh and Cook*, 42 L. D., 543.

A person who holds a farm unit shall not be permitted before full payment has been made on the appurtenant water right to acquire other lands with appurtenant water rights unless the water-right charges on the latter have been fully paid; similarly a person may hold private lands with appurtenant water rights up to the limit of single ownership fixed for a project in one or more parcels before full payment of the water-right charge, but may not acquire other lands with appurtenant water rights unless the water-right charges thereon have been paid in full. *Secretary's Instructions*, July 22, 1914, 43 L. D., 339-341.

Sec. 4. [United States fiscal agents upon projects—Public record of payments to be kept—Authenticated copies of records to be furnished.] That the Secretary of the Interior is hereby authorized to designate such bonded fiscal agents or officers of the Reclamation Service as he may deem advisable on each reclamation project to whom shall be paid all sums due on reclamation entries or water rights, and the officials so designated shall keep a record for the information of the

public of the sums paid and the amount due at any time on account of any entry made or water right purchased under the reclamation act; and the Secretary of the Interior shall make provision for furnishing copies of duly authenticated records of entries upon payment of reasonable fees, which copies shall be admissible in evidence, as are copies authenticated under section eight hundred and eighty-eight of the Revised Statutes. [37 Stat., 267.]

Sec. 5. [United States district courts given jurisdiction.] That jurisdiction of suits by the United States for the enforcement of the provisions of this act is hereby conferred on the United States district courts of the districts in which the lands are situated. [37 Stat., 267.]

PATENTS ON RECLAMATION PROJECT DESERT ENTRIES.

(Extract from) An act making appropriations to supply deficiencies in appropriations for the fiscal year 1912, and for prior years, and for other purposes. (Act Aug. 26, 1912, ch. 408, 37 Stat., 595.)

* * * * *

[Patents to desert-land entrymen within reclamation projects - Proof required.] That any desert-land entryman whose desert-land entry has been embraced within the exterior limits of any land withdrawal or irrigation project under the act of June seventeenth, nineteen hundred and two, known as the reclamation act, and who may have obtained a water supply for the land embraced in any such desert-land entry from the reclamation project by the purchase of a water-right certificate, may at any time after having complied with the provisions of the law applicable to such lands and upon proof of the cultivation and reclamation of the land to the extent required by the reclamation act for homestead entrymen, submit proof of such compliance, which proof, if found regular and satisfactory, shall entitle the entryman to a patent and a final water-right certificate under the same terms and conditions as required of homestead entrymen under the act entitled "An act providing for patents on reclamation entries, and for other purposes, approved August ninth, nineteen hundred and twelve." [37 Stat., 610.]

* * * * *

RECLAMATION EXTENSION ACT.

An act extending the period of payment under reclamation projects, and for other purposes. (Act Aug. 13, 1914, ch. 247, 38 Stat., 686.)

[Sec. 1. Payments of construction charges under future rights—Entry subject to announcement.] That any person whose lands hereafter become subject to the terms and conditions of the act approved June seventeenth, nineteen hundred and two, entitled "An act appropriating the receipts from the sale and disposal of public lands in certain States and Territories to the construction of irrigation works for the reclamation of arid lands," and acts amendatory thereof or supplementary thereto, hereafter to be referred to as the reclamation law, and any person who hereafter makes entry thereunder shall at the time of making water-right application or entry, as the case may be, pay into the reclamation fund five per centum of the construction charge fixed for his land as an initial installment, and shall pay the balance of said charge in fifteen annual installments, the first five of which shall each be five per centum of the construction charge and the remainder shall each be seven per centum until the whole amount shall have been paid. The first of the annual installments shall become due and payable on December first of the fifth calendar year after the initial installment: *Provided*, That any water-right applicant or entryman may, if he so elects, pay the whole or any part of the construction charges owing by him within any shorter period: *Provided further*, That entry may be made whenever water is available, as announced by the Secretary of the Interior, and the initial payment be made when the charge per acre is established. [38 Stat., 686.]

Circular letters.—Questions and answers, November 7, 1914, regarding the act in general.

No. 409, December 9, 1914, as to revised forms of water-right applications.

No. 536, January 26, 1916, in reference to credit on new entries under act of March 4, 1915, 38 Stat., 1215.

See public notice, September 24, 1914, regarding water-right charges, 43 L. D., 406.

See also notes under section 2 of this act.

Sec. 2. [Payments of construction charges under existing rights.] That any person whose land or entry has heretofore become subject to the terms and conditions of the reclamation law shall pay the construction charge, or the portion of the construction charge remaining unpaid, in twenty annual installments, the first of which shall become due and payable on December first of the year in which the public notice affecting his land is issued under this act, and sub-

sequent installments on December first of each year thereafter. The first four of such installments shall each be two per centum, the next two installments shall each be four per centum, and the next fourteen each six per centum of the total construction charge, or the portion of the construction charge unpaid at the beginning of such installments. [38 Stats., 687.]

"Subject to the terms and conditions of the reclamation law."—All persons whose land was, prior to August 13, 1914, subscribed to any reclamation project through the medium of a water-user's association, an irrigation district, a trust deed, a water-right application, a homestead entry, or any form of contract or agreement with the United States under the terms of which the United States may at any time be required to deliver water to said land, were subject to the terms and conditions of the reclamation law within the meaning of section 2 of the act of August 13, 1914 (38 Stat., 686). Departmental Decision, October 17, 1914.

The following named lands are not subject to the terms and conditions of the reclamation law within the meaning of this section: (a) State lands, whether or not affected by State legislation under which purchasers are required to comply with the provisions of the reclamation law; (b) railroad lands, unsold on or before August 13, 1914, whether or not affected by a declaration of the railroad company that purchasers shall comply with the terms of the reclamation law; and (c) State and railroad lands sold on or before August 13, 1914, which on that date had

not been included in a water-right application duly accepted. Departmental Decision, January 14, 1915.

Construction charge instalments not cumulative.—The reclamation extension act taken as a whole does not require that instalments of the construction charge, prior to water-right application for either private or public lands, be cumulative. Therefore, the first instalment upon a water-right application made under section 2 of the act will fall due on December 1 of the year in which application is made. Circular letter No. 516, September 2, 1915. See circular letter No. 595, September 21, 1915, and paragraph 4, circular letter No. 603, October 7, 1916.

Miscellaneous references.—Sec. (c) of circular letter No. 394, November 9, 1914, in reference to lands affected.

Circular letter No. 409, December 9, 1914, regarding revised forms of water-right application.

Circular letter No. 497, June 2, 1915, relative to payments by nonresident land-owners who have accepted the reclamation extension act, but have not made water-right application.

Sec. 3. [Penalties for nonpayment of construction charges—Cancellation and forfeiture—Actions for recovery.] That if any water-right applicant or entryman shall fail to pay any installment of his construction charges when due, there shall be added to the amount unpaid a penalty of one per centum thereof, and there shall be added a like penalty of one per centum of the amount unpaid on the first day of each month thereafter so long as such default shall continue. If any such applicant or entryman shall be one year in default in the payment of any installment of the construction charges and penalties, or any part thereof, his water-right application, and if he be a homestead entryman his entry also, shall be subject to cancellation, and all payments made by him forfeited to the reclamation fund, but no homestead entry shall be subject to contest because of such default: *Provided*, That if the Secretary of the Interior shall so

elect, he may cause suit or action to be brought for the recovery of the amount in default and penalties; but if suit or action be brought, the right to declare a cancellation and forfeiture shall be suspended pending such suit or action. [38 Stat., 687.]

Circular letters.—Questions and answers, November 7, 1914, regarding the act in general.

No. 516, September 2, 1915, regarding

No. 497, June 2, 1915, in reference to accumulation of construction charges.

Sec. 4. [Restriction on increasing construction charges—Time for paying increase—Charges subject to certain conditions.] That no increase in the construction charges shall hereafter be made, after the same have been fixed by public notice, except by agreement between the Secretary of the Interior and a majority of the water-right applicants and entrymen to be affected by such increase, whereupon all water-right applicants and entrymen in the area proposed to be affected by the increased charge shall become subject thereto. Such increased charge shall be added to the construction charge and payment thereof distributed over the remaining unpaid installments of construction charges: *Provided*, That the Secretary of the Interior, in his discretion, may agree that such increased construction charge shall be paid in additional annual installments, each of which shall be at least equal to the amount of the largest installment as fixed for the project by the public notice theretofore issued. And such additional installments of the increased construction charge, as so agreed upon, shall become due and payable on December first of each year subsequent to the year when the final installment of the construction charge under such public notice is due and payable: *Provided further*, That all such increased construction charges shall be subject to the same conditions, penalties, and suit or action as provided in section three of this act. [38 Stat., 687.]

Circular letters.—See (c) No. 394, November 9, 1914, regulations of reclamation commission.

No. 556, April 17, 1916, and No. 611, November 14, 1916, in reference to supplemental construction.

No. 400, November 21, 1914, No. 447, February 20, 1915, No. 506, June 24, 1915.

Sec. 5. [Operation and maintenance charges—Basis therefor—Minimum charge—Secretary may transfer care and operation of project—Reduction or increase of charges.] That in addition to the construction charge, every water-right applicant, entryman, or landowner under or upon a reclamation project shall also pay, whenever water service is available for the irrigation of his land, an operation and maintenance charge based upon the total cost of operation and maintenance of the project, or each separate unit thereof, and such charge shall be made for each acre-foot of water delivered; but each acre of irrigable land, whether irrigated or not, shall be charged with a minimum operation and maintenance charge based upon the charge

for delivery of not less than one acre-foot of water: *Provided*, That whenever any legally organized water users' association or irrigation district shall so request, the Secretary of the Interior is hereby authorized, in his discretion, to transfer to such water users' association or irrigation district the care, operation, and maintenance of all or any part of the project works, subject to such rules and regulations as he may prescribe. If the total amount of operation and maintenance charges and penalties collected for any one irrigation season on any project shall exceed the cost of operation and maintenance of the project during that irrigation season, the balance shall be applied to a reduction of the charge on the project for the next irrigation season, and any deficit incurred may likewise be added to the charge for the next irrigation season. [*38 Stat.*, 687.]

Operation and maintenance charges.—These charges follow the same rule as construction charges and do not accumulate against lands for which water-right application has not been made. The effect is that all operation and maintenance charges since December 1, 1914, under the extension act are to be considered as not accumulating. C. L. No. 622, December 18, 1916.

The word "year" used in connection with the operation and maintenance costs is the 12 months ending with December 31. C. L. No. 555, April 17, 1916.

See circular letters No. 378, October 17, 1914, No. 402, November 25, 1914,

and No. 618, December 13, 1916, in reference to operation and maintenance charges.

Miscellaneous circular letters.—Questions and answers, November 7, 1914, regarding the act in general.

No. 449, February 25, 1915, prohibiting partial payments on installments of water-right charges.

No. 497, June 2, 1915, in reference to payments by nonresident landowners and effect thereof.

Regulations of October 1, 1915, for transfer to water users' associations or irrigation districts of the care, operation, and maintenance of reclamation projects.

Sec. 6. [Date when charges become due fixed by the Secretary—Discount for prompt payment—Penalty for nonpayment—Cancellation for continued arrears—Actions for recovery.] That all operation and maintenance charges shall become due and payable on the date fixed for each project by the Secretary of the Interior, and if such charge is paid on or before the date when due there shall be a discount of five per centum of such charge; but if such charge is unpaid on the first day of the third calendar month thereafter, a penalty of one per centum of the amount unpaid shall be added thereto, and thereafter an additional penalty of one per centum of the amount unpaid shall be added on the first day of each calendar month if such charge and penalties shall remain unpaid, and no water shall be delivered to the lands of any water-right applicant or entryman who shall be in arrears for more than one calendar year for the payment of any charge for operation and maintenance or any annual construction charge and penalties. If any water-right applicant or entryman shall be one year in arrears in the payment of any charge for operation and maintenance and penalties, or any part thereof, his water-right ap-

plication, and if he be a homestead entryman his entry also, shall be subject to cancellation, and all payments made by him forfeited to the reclamation fund, but no homestead entry shall be subject to contest because of such arrears. In the discretion of the Secretary of the Interior suit or action may be brought for the amounts in default and penalties in like manner as provided in section three of this act. [38 Stat., 688.]

"Calendar year."—The term as used in this section refers to a period from January 1 to December 31, inclusive. Secretary's Decision, May 24, 1916, C. L. 564, June 6, 1916.

Circular letters.—No. 378, October 17, 1914, regarding operation and maintenance charges.

No. 497, June 2, 1915, in reference to payments by nonresident landowners and effect thereof.

No. 524, December 11, 1915, regarding payment first installment of construction charge.

Sec. 7. [Local association may be appointed fiscal agent for the United States to collect charges—Official receipt.] That the Secretary of the Interior is hereby authorized, in his discretion, to designate and appoint, under such rules and regulations as he may prescribe, the legally organized water users' association or irrigation district, under any reclamation project, as the fiscal agent of the United States to collect the annual payments on the construction charge of the project and the annual charges for operation and maintenance and all penalties: *Provided*, That no water-right applicant or entryman shall be entitled to credit for any payment thus made until the same shall have been paid over to an officer designated by the Secretary of the Interior to receive the same. [38 Stat., 688.]

See circular letter, No. 500, June 4, 1915, as to fiscal agents.

Sec. 8. [Authority to make regulations governing use of water, reclamation, and cultivation—Penalty for noncompliance with regulations.] That the Secretary of the Interior is hereby authorized to make general rules and regulations governing the use of water in the irrigation of the lands within any project, and may require the reclamation for agricultural purposes and the cultivation of one-fourth the irrigable area under each water-right application or entry within three full irrigation seasons after the filing of water-right application or entry, and the reclamation for agricultural purposes and the cultivation of one-half the irrigable area within five full irrigation seasons after the filing of the water-right application or entry, and shall provide for continued compliance with such requirements. Failure on the part of any water-right applicant or entryman to comply with such requirements shall render his application or entry subject to cancellation. [38 Stat., 688.]

Miscellaneous references.—Questions and answers, November 7, 1914, regarding the act in general.

Regulations of May 3, 1915, concerning reclamation and cultivation, 44 L. D., 89.

Sec. 9. [Additional construction charges for certain lands.] That in all cases where application for water right for lands in private ownership or lands held under entries not subject to the reclamation law shall not be made within one year after the passage of this act, or within one year after notice issued in pursuance of section four of the reclamation act, in cases where such notice has not heretofore been issued, the construction charges for such land shall be increased five per centum each year until such application is made and an initial installment is paid. [38 Stat., 689.]

Circular letters.—Questions and answers, November 7, 1914, regarding the act in general.

No. 497, June 2, 1915, in reference to payments by nonresident landowners and effect thereof.

No. 516, September 2, 1915, regarding accumulation of construction charges.

No. 541, February 17, 1916, as to supplemental construction.

In the case of lands for which water-right application is made under section 2

of this act the 5 per cent increase in construction charges provided for by this section ceases when the water-right application is made; but in cases where water-right application is made for lands under section 1, said increase does not cease until both the application is made and the initial installment is paid. Reclamation Commission Decision, March 17, 1917, C. L., 640.

Sec. 10. [Entries prior to June 25, 1910—Disposal of relinquished lands.] That the act of Congress approved February eighteenth, nineteen hundred and eleven, entitled "An act to amend section five of the act of Congress of June twenty-fifth, nineteen hundred and ten, entitled 'An act to authorize advances to the reclamation fund and for the issuance and disposal of certificates of indebtedness in reimbursement therefor, and for other purposes,' " be, and the same hereby is, amended so as to read as follows:

"Sec. 5. That no entry shall be hereafter made and no entryman shall be permitted to go upon lands reserved for irrigation purposes until the Secretary of the Interior shall have established the unit of acreage per entry, and water is ready to be delivered for the land in such unit or some part thereof and such fact has been announced by the Secretary of the Interior: *Provided*, That where entries made prior to June twenty-fifth, nineteen hundred and ten, have been or may be relinquished, in whole or in part, the lands so relinquished shall be subject to settlement and entry under the reclamation law." [38 Stat., 689.]

See notes under section 5, act of June 25, 1910, 36 Stat., 835, and under act of February 18, 1911, 36 Stat., 917.

Sec. 11. [Furnishing water before regular rates are fixed.] That whenever water is available and it is impracticable to apportion operation and maintenance charges as provided in section five of this act, the Secretary of the Interior may, prior to giving public

notice of the construction charge per acre upon land under any project, furnish water to any entryman or private landowner thereunder until such notice is given, making a reasonable charge therefor, and such charges shall be subject to the same penalties and to the provisions for cancellation and collection as herein provided for other operation and maintenance charges. [38 Stat., 689.]

See circular letter No. 533 A, February 5, 1916, in reference to payment of water rental charges.

Sec. 12. [Owners of private lands under new projects must dispose of excess area—Lands excluded upon refusal.] That before any contract is let or work begun for the construction of any reclamation project hereafter adopted the Secretary of the Interior shall require the owners of private lands thereunder to agree to dispose of all lands in excess of the area which he shall deem sufficient for the support of a family upon the land in question, upon such terms and at not to exceed such price as the Secretary of the Interior may designate; and if any landowner shall refuse to agree to the requirements fixed by the Secretary of the Interior, his land shall not be included within the projects if adopted for construction. [38 Stat., 689.]

Sec. 13. [Entries to be reduced to single farm units—Time for making proof—Cancellation of excess entries—Issue of patents—Assignments restricted.] That all entries under reclamation projects containing more than one farm unit shall be reduced in area and conformed to a single farm unit within two years after making proof of residence, improvement, and cultivation, or within two years after the issuance of a farm-unit plat for the project, if the same issues subsequent to the making of such proof: *Provided*, That such proof is made within four years from the date as announced by the Secretary of the Interior that water is available for delivery for the land. Any entryman failing within the period herein provided to dispose of the excess of his entry above one farm unit, in the manner provided by law, and to conform his entry to a single farm unit shall render his entry subject to cancellation as to the excess above one farm unit: *Provided*, That upon compliance with the provisions of law such entryman shall be entitled to receive a patent for that part of his entry which conforms to one farm unit as established for the project: *Provided further*, That no person shall hold by assignment more than one farm unit prior to final payment of all charges for all the land held by him subject to the reclamation law, except operation and maintenance charges not then due. [38 Stat., 690.]

See circular letter No. 414, December 12, 1914, interpreting the proviso of this section.

Farm-unit plats are a part of the public notice affecting same, and where such

plats are approved by the Secretary of the Interior prior to date of the public notice the latter date controls, and entrymen who submitted proof on or prior thereto will have two years from the date

of notice within which to conform their entries and dispose of excess lands under this section. Where proof is submitted after date of public notice the two years begin to run from the date of such proof, provided that same is submitted within four years from the date fixed by the Secretary when water will be available for irrigation of the lands in question.

General Land Office Decision, March 28, 1917 (Salt River).

Where an entryman of lands within a reclamation project fails, after notice, to conform his entry to an established farm unit the Secretary of the Interior has the power to conform the entry. Mangus Mickelson, 43 L. D., 210.

Sec. 14. [Acceptance of extension of payments to be made within six months.] That any person whose land or entry has heretofore become subject to the reclamation law, who desires to secure the benefits of the extension of the period of payments provided by this act, shall, within six months after the issuance of the first public notice hereunder affecting his land or entry, notify the Secretary of the Interior, in the manner to be prescribed by said Secretary, of his acceptance of all of the terms and conditions of this act, and thereafter his lands or entry shall be subject to all of the provisions of this act. [*38 Stat., 690.*]

Amended by act of July 26, 1916, 39 Stat., 390. See notes thereunder.

Circular letters.—No. 385, October 24, 1914, as to recording acceptances of the act.

Notice to water users, November 6, 1914.

Questions and answers, November 7, 1914, regarding the act in general.

Letter to project manager, Umatilla project, November 7, 1914.

No. 497, June 2, 1915, in reference to payments by nonresident landowners and effect thereof.

No. 512, July 17, 1915, as to status of lands.

Sec. 15. [General authority.] That the Secretary of the Interior is hereby authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying the provisions of this act into full force and effect. [*38 Stat., 690.*]

Sec. 16. [Expenditures after July 1, 1915, limited to specific appropriations—To be paid out of reclamation fund.] That from and after July first, nineteen hundred and fifteen, expenditures shall not be made for carrying out the purposes of the reclamation law except out of appropriations made annually by Congress therefor, and the Secretary of the Interior shall, for the fiscal year nineteen hundred and sixteen, and annually thereafter, in the regular Book of Estimates, submit to Congress estimates of the amount of money necessary to be expended for carrying out any or all of the purposes authorized by the reclamation law, including the extension and completion of existing projects and units thereof and the construction of new projects. The annual appropriations made hereunder by Congress for such purposes shall be paid out of the reclamation fund provided for by the reclamation law. [*38 Stat., 690.*]

See sundry civil appropriation act of March 3, 1915, 38 Stat., 860.

Contracts.—Work done under contracts before the date expenditures from the reclamation fund are prohibited may be paid from said fund thereafter if the physical act of payment alone then remains to be done, but work done after the prohibited date may not be paid from said fund. 21 Comp. Dec., 313.

An express authority to make contracts is not divested by a subsequent change from permanent to annual appropriations for the subject matter of the contracts. 21 Comp. Dec., 447.

The requirement of annual estimates and appropriation imposes a limitation which will not permit the use of the next fiscal year appropriation to continue work under contracts extending over several fiscal years after the funds for the current fiscal year are exhausted. 21 Comp. Dec., 828.

Eight-hour law.—The eight-hour law of

June 19, 1912 (87 Stat., 137), which provides for a penalty of \$5 per day for each laborer working in excess of eight hours upon construction contracts or materials under special specifications, the same to be deducted from the monthly estimates of the contractor, is effective in regard to work of the Reclamation Service since the service was put upon an annual appropriation basis by the act of August 13, 1914 (38 Stat., 686). Prior to that time the act did not apply to the work of the Reclamation Service. Comp. Dec., June 8, 1915.

Circular letters.—No. 350, August 12, 1914, on estimates of expenditures.

No. 423, January 22, 1915, in reference to comptroller's decision regarding contracts.

No. 430, January 27, 1915, on appropriation and fund accounting.

No. 542, February 28, 1916, in reference to contracts extending beyond fiscal year.

RESERVATIONS FOR PARKS AND COMMUNITY CENTERS.

An act to authorize the reservation of public lands for country parks and community centers within reclamation projects, and for other purposes. (Act Oct. 5, 1914, ch. 318, 38 Stat., 727.)

[Sec. 1. Lands in reclamation projects reserved for country parks, public playgrounds, and community centers.] That the Secretary of the Interior be, and he is hereby, authorized to withdraw from other disposition and reserve for country parks, public playgrounds, and community centers for the use of the residents upon the lands such tracts as he may deem advisable not exceeding twenty acres in any one township in each reclamation project or the several units of such reclamation projects undertaken under the act of June seventeenth, nineteen hundred and two, known as the reclamation act. [38 Stat., 727.]

See note under section 1, act of April 16, 1906, 34 Stat., 116.

Sec. 2. [Free water supply—Reservations to be used in perpetuity.] That subject to the provisions hereinafter contained every such tract of land so set apart shall be supplied with water from the Government irrigation system, the cost thereof to be charged to the remaining lands of the project as a part of the construction charge of such project, and shall be maintained and used in perpetuity by the people upon said reclaimed lands for a pleasure park, public playground, and community center. [38 Stat., 727.]

Sec. 3. [Contracts with irrigation organizations to maintain lands so reserved for purposes prescribed—Reversion.] That for the purpose of carrying out and effecting the objects of this act the Secretary of the Interior is authorized to enter into a contract with the organization formed by the owners of the lands irrigated within said project or project unit pursuant to section six of the act of June seventeenth, nineteen hundred and two, stipulating and providing that the organization will maintain and use such of the lands so reserved for the purposes prescribed in this act as such organization may desire, and that upon failure to so maintain and use such lands, or in the event that same shall be permitted to be used or occupied for other purposes than those stipulated in this act, the control of the lands shall revert to the United States. [38 Stat., 728.]

See Circular Letter No. 515, Aug. 19, 1915, in reference to form of water-serv- | ice contract for a community center.

Sec. 4. [Disposal of lands not taken within 10 years—Proceeds covered into reclamation fund.] That any of such lands not contracted for in accordance with the provisions of section three of this act within ten years from the time water is available for the same, or sooner, if the Secretary of the Interior may deem it desirable, shall be disposed of in accordance with the public-land laws applicable thereto, and the proceeds from the disposition of lands reverting to the United States under the provisions of this act, and from sales of water rights, shall be covered into the reclamation fund and placed to the credit of the project wherein the lands are situate. [38 Stat., 728.]

SPECIAL PROVISIONS OF SUNDRY CIVIL APPROPRIATION ACT FOR 1916.

(Extracts from) An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1916, and for other purposes. (Act Mar. 3, 1915, ch. 75, 38 Stat., 822.)

[Purchase of passenger-carrying vehicles—Compromise of damages by Secretary—Payment for injuries.] (Appropriations are made from the reclamation fund for) * * * purchase, maintenance, and operation of horse-drawn or motor-propelled passenger-carrying vehicles; * * * payment of damages caused to the owners of lands or private property of any kind by reason of the operations of the United States, its officers or employees, in the survey, construction, operation, or maintenance of irrigation works, and which may be compromised by agreement between the claimant and the Secretary of the Interior: and compensation to artisans and laborers for injuries under the act of May thirtieth, nineteen hundred and eight (Thirty-fifth Statutes, page five hundred and fifty-six.) [38 Stat., 859.]

The sundry civil appropriation act of July 1, 1916, 39 Stat., 202, contains a similar provision.

Liquidation of damages by executive officer.—Where damage to lands arises in connection with construction, operation, or maintenance of a reclamation project, and is caused neither by negligence nor by accident, the Secretary of the Interior now and always has had under section 10 of the reclamation act the power to liquidate the damages, as declared by Congress in this appropriation act. The

latter act is a legislative construction of the reclamation act. The damages in question must be due to acts by direction of competent authority. In re Scott, Shoshone project, Comp. Dec., June 15, 1915.

Comptroller of the Reclamation Service given authority to approve compromise agreements for damages, by letter dated June 23, 1915, approved by the First Assistant Secretary of the Interior, July 29, 1915.

* * * * *

[Obligations not to exceed appropriations or reclamation fund—Ten per cent of appropriations available interchangeably.] Under the provisions of this act no greater sum shall be expended, nor shall the United States be obligated to expend, during the fiscal year nineteen hundred and sixteen, on any reclamation project appropriated for herein an amount in excess of the sum herein appropriated therefor, nor shall the whole expenditures or obligations incurred for all of such projects for the fiscal year nineteen hundred and sixteen exceed the whole amount in the "reclamation fund" for that fiscal year.

Ten per centum of the foregoing amounts shall be available interchangeably for expenditure on the reclamation projects named; but not more than ten per centum shall be added to the amount appropriated for any one of said projects. [38 Stat., 860.]

* * * * *

The sundry civil appropriation act of July 1, 1913, 38 Stat., 262, contains a similar provision.	See section 16, act of August 13, 1914, 38 Stat., 686.
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* * * * *

[No obligation increasing fixed construction charge permitted until agreement is made with water users.] No work shall be undertaken or expenditure made for any lands, for which the construction charge has been fixed by public notice, which work or expenditure shall, in the opinion of the Secretary of the Interior, increase the construction cost above the construction charge so fixed; unless and until valid and binding agreement to repay the cost thereof shall have been entered into between the Secretary of the Interior and the water-right applicants and entrymen affected by such increased cost, as provided by section four of the act of August thirteenth, nineteen hundred and fourteen, entitled "An act extending the period of payment under reclamation projects, and for other purposes." [38 Stat., 861.]

[Protection of property along Colorado River.] For protecting lands and property in the Imperial Valley and elsewhere along the Colorado River, within the limits of the United States, against injury or destruction by reason of the changes in the channels of the Colorado River—and the Secretary of the Interior is authorized to expend any portion of such money within the limits of the Republic of Mexico as he may deem proper in accordance with such agreements for the purpose as may be made with the Republic of Mexico—\$100,000, which sum shall be available for expenditure as soon as there shall have been paid into the Treasury, by contributions from the Imperial Valley irrigation district, an equivalent amount to the credit of the Secretary of the Interior, to constitute, with the amount hereby appropriated, the total sum of \$200,000, to be expended by him for the purposes herein described. [38 Stat., 861.]

* * * * *

RELIEF OF HOMESTEAD ENTRYMEN.

An act for the relief of homestead entrymen under the reclamation projects of the United States. (Act Mar. 4, 1915, ch. 132, 38 Stat., 1215.)

[Sec. 1. Relinquishment of homestead entries under reclamation act if land not irrigable—Selection of farm unit in lieu—Residence on original entry credited.] That any person who has made homestead entry under the act of June seventeenth, nineteen hundred and two (Thirty-second Statutes at Large, page three hundred and eighty-eight), for land believed to be susceptible of irrigation which at the time of said entry was withdrawn for any contemplated irrigation project, may relinquish the same provided that it has since been determined that the land embraced in such entry or all thereof in excess of twenty acres is not or will not be irrigable under the project, and in lieu thereof may select and make entry for any farm unit included within such irrigation project as finally established, notwithstanding the provisions of section five of the act of June twenty-fifth, nineteen hundred and ten, entitled "An act to authorize advances to the reclamation fund," and so forth, and acts amendatory thereof: *Provided*, That such entrymen shall be given credit on the new entry for the time of bona fide residence maintained on the original entry. [38 Stat., 1215.]

Miscellaneous references. — General Land Office Circular of April 29, 1915, under this act, 44 L. D., 87.

General Land Office Circular of September 25, 1915, amending paragraphs 2 and 3 of circular of April 29, 1915, 44 L. D., 377.

Reclamation Service Instructions of December 20, 1915, governing credit for water-right payments in cases of new selection under said act. 44 L. D., 544.

Circular letter No. 536, January 28, 1916, in reference to credit on new entries under this act.

ASSIGNMENT OF HOMESTEAD ENTRIES.

An act to amend the act of June 23, 1910, entitled "An act providing that entrymen for homesteads within the reclamation projects may assign their entries upon satisfactory proof of residence, improvement, and cultivation for five years, the same as though said entry has been made under the original homestead act." (Act May 8, 1916, ch. 114, 39 Stat., 65.)

[Sec. 1. Assignment of homestead entries within reclamation projects—Confirmation of certain assignments made between June 23, 1910, and January 1, 1913.] That the act of June twenty-third, nineteen hundred and ten (Public, Two hundred and forty-three, Thirty-sixth Statutes, page five hundred and ninety-two), entitled "An act providing that entrymen for homesteads within reclamation projects may assign their entries upon satisfactory proof of residence, improvement, and cultivation for five years, the same as though said entry had been made under the original homestead act," is hereby amended by adding the following proviso:

Provided, That in the absence of any intervening valid adverse interests any assignment made between June twenty-third, nineteen hundred and ten, and January first, nineteen hundred and thirteen, of land upon which the assignor has submitted satisfactory final proof and the assignee purchased with the belief that the assignment was valid and under the act of June twenty-third, nineteen hundred and ten, is hereby confirmed, and the assignee shall be entitled to the land assigned as under the act of June twenty-third, nineteen hundred and ten, notwithstanding that said original entry was conformed to farm units and that the part assigned was canceled and eliminated from said entry prior to the date of final proof: *Provided further*, That all entries so assigned shall be subject to the limitations, terms and conditions of the reclamation act and acts amendatory thereof or supplemental thereto, and all of said assignees whose entries are hereby confirmed shall, as a condition to receiving patent, make the proof heretofore required of assignees." [39 Stat., 65.]

USE OF PROJECT REFUNDS.

(Extract from) An act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1917, and for other purposes. (Act July 1, 1916, ch. 209, 39 Stat., 262.)

• • • • •

[Certain project refunds credited to appropriations.] All moneys refunded, except repayments of construction and operation and maintenance charges, under the provisions of the act shall be a credit to the appropriation for the project from or on account of which the collection is made and shall be available for expenditure in like manner as if said sum had been specifically appropriated for said project in this act. [39 Stat., 306.]

ACCEPTANCE OF EXTENSION ACT.

An act to amend section 14 of the reclamation extension act approved August 13, 1914. (Act July 26, 1916, ch. 257, 39 Stat., 390.)

[Sec. 1. Acceptance of extension of payments to be made within six months—Upon showing, may be made later.] That section fourteen of an act entitled "An act extending the period of payment under reclamation projects, and for other purposes," approved August thirteenth, nineteen hundred and fourteen, be amended so as to read as follows:

"SEC. 14. That any person whose land or entry has heretofore become subject to the reclamation law, who desires to secure the benefits of the extension of the period of payments provided by this act, shall, within six months after the issuance of the first public notice hereunder affecting his land or entry, notify the Secretary of the Interior, in the manner to be prescribed by said Secretary, of his acceptance of all the terms and conditions of this act, and thereafter his lands or entry shall be subject to all of the provisions of this act: *Provided*, That upon sufficient showing the Secretary of the Interior may, in his discretion, permit notice of acceptance of all the terms and conditions of this act to be filed at any time after the time limit hereinbefore fixed for filing such acceptance shall have expired, conditioned, however, that where the applicant for such acceptance is in arrears on construction charges he shall at the time of acceptance pay such installments of the construction charge as he would have been required to pay had he accepted this act within the time limit hereinabove fixed, plus the penalties that would have accrued had he so accepted, and such applicant shall thereafter be upon the same status that he would have been had he accepted the provisions of this act within the time limit hereinabove fixed, and thereafter the lands or entry of any such persons so filing such notice of acceptance shall be subject to all the provisions of this act." [39 Stat., 390.]

Miscellaneous references.—Reclamation Instructions, July 27, 1916, 45 L. D., 317.

Circulars of July 28, 1916, and July 29, 1916, in reference to above-mentioned instructions.

Circular letter No. 603, October 7, 1916,

superseding circular letters No. 596, September 21, 1916, and No. 597, September 25, 1916.

Circular letter No. 629, January 24, 1917, in reference to recording acceptances under this act.

PUBLIC LANDS IN IRRIGATION DISTRICTS.

An act to promote the reclamation of arid lands.¹ (Act Aug. 11, 1916, ch. 319, 39 Stat., 506.)

[Sec. 1. Public lands within irrigation districts made subject to State laws—Benefits of State laws to be extended to holders of public lands—Act not applicable to districts with majority acreage of unentered lands.] That when in any State of the United States under the irrigation district laws of said State there has heretofore been organized and created or shall hereafter be organized and created any irrigation district for the purpose of irrigating the lands situated within said irrigation district, and in which irrigation district so created or to be created there shall be included any of the public lands of the United States, such public lands so situated in said irrigation district, when subject to entry, and entered lands within said irrigation district, for which no final certificates have been issued, which may be designated by the Secretary of the Interior in the approval by him of the map and plat of an irrigation district as provided in section three, are hereby made and declared to be subject to all the provisions of the laws of the State in which such lands shall be situated relating to the organization, government, and regulation of irrigation districts for the reclamation and irrigation of arid lands for agricultural purposes, to the same extent and in the same manner in which the lands of a like character held under private ownership are or may be subject to said laws: *Provided*, That the United States and all persons legally holding unpatented lands under entry made under the public land laws of the United States are accorded all the rights, privileges, benefits, and exemptions given by said State laws to persons holding lands of a like character under private ownership, except as hereinafter otherwise provided: *Provided further*, That this act shall not apply to any irrigation district comprising a majority acreage of unentered land. [39 Stat., 506.]

Sec. 2. [Irrigation costs to be apportioned against all lands—Certain charges certified to land offices—No obligation against United States—Charges made lien upon public lands—Lands may be sold therefor—Limitations—Reclamation act.] That the cost of constructing, acquiring, purchasing, or maintaining the canals, ditches, reservoirs, reservoir sites, water, water right, rights of way, or other property

¹ Popularly known as the Smith Act, being so named for Representative in Congress Addison T. Smith, of Idaho.

incurred in connection with any irrigation project under said irrigation district laws shall be equitably apportioned among lands held under private ownership, lands legally covered by unpatented entries, and unentered public lands included in said irrigation district. Officially certified lists of the amounts of charges assessed against the smallest legal subdivision of said lands shall be furnished to the register and receiver of the land district within which the lands affected are located as soon as such charges are assessed; but nothing in this act shall be construed as creating any obligation against the United States to pay any of said charges, assessments, or debts incurred.

That all charges legally assessed shall be a lien upon unentered lands and upon lands covered by unpatented entries included in said irrigation district; and said lien upon said land covered by unpatented entries may be enforced upon said unpatented lands by the sale thereof in the same manner and under the same proceeding whereby said assessments are enforced against lands held under private ownership: *Provided*, That in the case of entered unpatented lands the title or interest which such irrigation district may convey by tax sale, tax deed, or as a result of any tax proceeding shall be subject to the following conditions and limitations: If such unpatented land be withdrawn under the act of Congress of June seventeenth, nineteen hundred and two (Thirty-second Statutes, page three hundred and eighty-eight), known as the reclamation act, or subject to the provisions of said act, then the interest which the district may convey by such tax proceedings or tax deed shall be subject to a prior lien reserved to the United States for all the unpaid charges authorized by the said act of June seventeenth, nineteen hundred and two, but the holder of such tax deed or tax title resulting from such district tax shall be entitled to all the rights and privileges in the land included in such tax title or tax deed of an assignee, under the provisions of the act of Congress of June twenty-third, nineteen hundred and ten (Thirty-sixth Statutes, page five hundred and ninety-two), and upon submission to the United States land office of the district in which the land is located of satisfactory proof of such tax title, the name of the holder thereof shall be indorsed upon the records of such land office as entitled to the rights of one holding a complete and valid assignment under the said act of June twenty-third, nineteen hundred and ten, and such person may at any time thereafter receive patent upon submitting satisfactory proof of the reclamation and irrigation required by the said act of Congress of June seventeenth, nineteen hundred and two, and acts amendatory thereto, and making the payments required by said acts. [39 Stat., 507.]

Sec. 3. [Before lien becomes effective, Secretary of the Interior to approve project—After 10 years he may remove lien if water is not available—In districts with constructed works, public lands made subject to assessments previously made.] That no unentered lands and no entered lands for which no final certificates have been issued shall be subject to the lien or liens herein contemplated until there shall have been submitted by said irrigation district to the Secretary of the Interior, and approved by him, a map or plat of said district and sufficient detailed engineering data to demonstrate to the satisfaction of the Secretary of the Interior the sufficiency of the water supply and the feasibility of the project, and which shall explain the plan or mode of irrigation in those irrigation districts where the irrigation works have not been constructed, and which plan shall be sufficient to thoroughly irrigate and reclaim said land and prepare it to raise ordinary agricultural crops, and which shall also show the source of water to be used for irrigation of land included in said district: *Provided*, That the Secretary of the Interior may, upon the expiration of ten years from the date of his approval of said map and plan of any irrigation district, release from the lien authorized by this act any unentered land or lands upon which final certificate has not issued, for which irrigation works have not been constructed and water of such district made available for the land: *Provided further*, That in those irrigation districts already organized and whose irrigation works have been constructed and are in operation as soon as a satisfactory map, plat, and plan shall have been approved by the Secretary of the Interior, as in this act provided, such entered and unentered lands shall be subject to all district taxes and assessments theretofore actually levied against the lands in said district and in the same manner in which lands of a like character held under private ownership are subject to liens and assessments. [39 Stat., 507.]

Sec. 4. [Record of approval in land offices.] That upon the approval of the district map or plat as hereinbefore provided by the Secretary of the Interior the register and receiver will note said approval upon their records where any unentered or entered and unpatented lands are affected. [39 Stat., 508.]

Sec. 5. [Unentered lands not to be sold for taxes—Lien to be continuing—Payment to be made by entryman.] That no public lands which were unentered at the time any tax or assessment was levied against same by such irrigation district shall be sold for such taxes or assessments, but such tax or assessment shall be and continue a lien upon such lands, and not more than one hundred and sixty acres of such land shall be entered by any one person; and when such lands shall be applied for, after said approval by the Secretary of the Interior, under the homestead or desert-land laws of the United States the application shall be suspended for a period of thirty days

to enable the applicant to present a certificate from the proper district or county officer showing that no unpaid district charges are due and delinquent against said land. [39 Stat., 508.]

Sec. 6. [Public lands sold under tax lien patented to purchaser—Payment to United States of minimum price of \$1.25 per acre—Qualifications and limitations—Purchaser to make complete payment within 90 days or land may be purchased by another—Conditions—Disposal of vacant entered land.] That any entered but unpatented lands not subject to the reclamation act of June seventeenth, nineteen hundred and two (Thirty-second Statutes, page three hundred and eighty-eight), sold in the manner and for the purposes mentioned in this act may be patented to the purchaser thereof or his assignee at any time after the expiration of the period of redemption allowed by law under which it may have been sold (no redemption having been made) upon the payment to the receiver of the local land office of the minimum price of \$1.25 per acre, or such other price as may be fixed by law for such lands, together with the usual fees and commissions charged in entries of like lands under the homestead laws, and upon a satisfactory showing that the irrigation works have been constructed and that water of the district is available for such land; but the purchaser or his assignee shall, at the time of application for patent, have the qualification of a homestead entryman or desert-land entryman, and not more than one hundred and sixty acres of said land shall be patented to any one purchaser under the provisions of this act.

These limitations shall not apply to sales to irrigation districts, but shall apply to purchasers from such irrigation districts of such land bid in by said district.

That unless the purchaser or his assignee of such lands shall, within ninety days after the time for redemption has expired, pay to the proper receiver all fees and commissions and the purchase price to which the United States shall be entitled as provided for in this act, any person having the qualification of a homestead entryman or a desert-land entryman may pay to the proper receiver, for not more than one hundred and sixty acres of said lands, for which payment has not been made, the unpaid purchase price, fees, and commissions to which the United States may be entitled; and upon satisfactory proof that he has paid to the purchaser at the tax sale, or his assignee, or to the proper officer of the district for such purchaser or for the district, as the case may be, the sum for which the land was sold at sale for irrigation district charges or bid in by the district at such sale, and in addition thereto the interest and penalties on the amount bid at the rate allowed by law, shall be subrogated to the rights of such purchaser to receive patent for said land.

In any case where any tract of entered land lying within such approved irrigation district shall become vacant by relinquishment or cancellation for any cause, any subsequent applicant therefor shall be required, in addition to the qualifications and requirements otherwise provided, to furnish satisfactory proof by certificate from the proper district or county officer that he has paid all charges then due to the district upon said land and also has paid to the proper district or county officer for the holder or holders of any tax certificates, delinquency certificates, or other proper evidence of purchase at tax sale the amount for which the said land was sold at tax sale, together with the interest and penalties thereon provided by law. [39 Stat., 508.]

Sec. 7. [Issue and delivery of district notices—Petition, appeal, etc.—Rights of redemption.] That all notices required by the irrigation district laws mentioned in this act shall, as soon as such notices are issued, be delivered to the register and receiver of the proper land office in cases where unpatented lands are affected thereby, and to the entryman whose unpatented lands are included therein, and the United States and such entryman shall be given the same rights to be heard by petition, answer, remonstrance, appeal, or otherwise as are given to persons holding lands in private ownership, and all entrymen shall be given the same rights of redemption as are given to the owners of lands held in private ownership. [39 Stat., 509.]

Sec. 8. [Disposal of receipts.] That all moneys derived by the United States from the sale of public lands herein referred to shall be paid into such funds and applied as provided by law for the disposal of the proceeds from the sale of public lands. [39 Stat., 509.]

RELIEF OF SETTLERS UNDER YUMA PROJECT.

An act for the relief of certain settlers under reclamation projects. (Act Aug. 17, 1916, ch. 349, 39 Stat. 516.)

[Sec. 1. Certain settlers under Yuma project allowed to make farm-unit entry, credited with previous residence and improvements.] That any person who has heretofore established residence upon and improved any tract of land within the irrigable area of the Yuma reclamation project in Arizona withdrawn from entry under the provisions of the reclamation law and acts supplementary thereto and amendatory thereof, and who shall have made valuable improvements upon such lands, and who has resided thereon in good faith for two years prior to the passage of this act, may make entry for the farm unit upon which his residence is established, and that such residence and improvements heretofore made shall be credited upon his final proof. [39 Stat., 516.]

SALE OF TOWN-SITE LANDS AT NEWELL, S. DAK.

An act authorizing the Secretary of the Interior to sell the unsold and unappropriated portions of lands within the town site of Newell, S. Dak., and for other purposes. (Act Sept. 8, 1916, ch. 477, 39 Stat., 852.)

[Sec. 1. Certain town-site lands in Newell, S. Dak., reserved for Belle Fourche project—Remaining lands to be appraised and sold.] That the Secretary of the Interior be, and he is hereby, authorized and directed to reserve and set apart such portions of the unsold and unappropriated lands within the town site of Newell, Butte County, South Dakota, as he deems necessary for administrative purposes in connection with the Belle Fourche irrigation project, and after subdividing the remaining portions of such lands into tracts that in his judgment would render the same most salable, and, appraising the reasonable value of each such tracts, sell the same, for not less than the appraised value, at public auction to the highest bidder, on such terms and under such rules and regulations as he may establish. [39 Stat., 852.]

Sec. 2. [\$15,000 of proceeds to be special domestic water supply fund for Newell—Balance to reclamation fund.] That of the proceeds of such sales, after deducting all expenses incurred in the subdivision, appraisal, and sale of said land, an amount not exceeding \$15,000 shall be covered into the Treasury of the United States in a special fund available only for expenditure by the Secretary of the Interior to provide or assist in providing the said town of Newell, Butte County, South Dakota, an adequate system of water supply for domestic purposes, under such terms and conditions as may be provided by the Secretary of the Interior, or for such other and further public improvements as the Secretary of the Interior and the municipal authorities of said town may agree upon. The net proceeds of such sale in excess of \$15,000, if any there be, shall be covered into the Treasury of the United States and credited to the reclamation fund in accordance with existing law for the sale of town sites on reclamation projects. [39 Stat., 852.]

Sec. 3. [Authority to make rules and regulations.] That the Secretary of the Interior is hereby authorized to make such rules and regulations as may be necessary for carrying into effect the provisions of this act. [39 Stat., 853.]

AUXILIARY RECLAMATION PROJECT AT YUMA.

An act to provide for an auxiliary reclamation project in connection with the Yuma project, Arizona.
(Act of January 28, 1917, CH. —, 39 Stat., —.)

[Sec. 1. Certain lands to be set apart and sold—Sale of water rights—Limitation as to works and water delivery—Determination of value and costs by Secretary of the Interior.] That the Secretary of the Interior is hereby authorized to set apart any lands in the State of Arizona heretofore or hereafter withdrawn under the reclamation law, in connection with the Yuma reclamation project, as an auxiliary reclamation project or unit, and sell, in tracts of such size as he may determine of not more than one hundred and sixty acres to any one purchaser, the lands so set apart and believed to be susceptible of irrigation, at public sale under suitable regulations, for not less than the reasonable value per acre of the land plus the estimated cost per acre of reclamation works to be constructed for the reclamation of said lands so set apart plus the proportionate cost per acre of the works previously constructed and available therefor. That appurtenant water rights for lands in private ownership may be sold for not to exceed one hundred and sixty acres to any one person at a price equal to the estimated cost per acre of the works to be constructed plus the proportionate cost per acre of the works previously constructed and available for the lands, if any there be, payment to be made under the same terms as for public land under the provisions of section two. Final water-right certificate shall not be issued to such private land until payment has been made in full. No works shall be constructed nor water delivered through any of the works of the Yuma project for the irrigation of any such private lands unless application has been made to purchase a water right for such land under the terms and provisions of this section. The Secretary of the Interior, at or prior to the time of sale, shall fix and determine (a) the reasonable value of the land per acre; (b) the estimated cost per acre of the works to be constructed; and (c) the proportionate cost per acre of the works previously constructed and available for the lands offered for sale. [39 Stat.]

Sec. 2. [Requirements of bidders—Methods of sale—Terms of purchase—Issue of patents—Preference rights—Return of actual cost of irrigation works required.] That all bidders at such public sale shall be required to make a deposit of ten per centum of the amount bid for the tract proposed to be purchased, and upon notice

from the Secretary of the Interior that such bid has been accepted shall be required to pay fifteen per centum additional within sixty days after such notice. In case of failure to do so the deposit shall be forfeited and the corresponding lands shall be available for further sale. In case the bids for the lands shall not aggregate a sufficient amount within six months from the time fixed for the filing of bids to meet the probable cost as announced, all deposits shall be returned. The remaining seventy-five per centum of the purchase price shall be paid in three annual installments, with interest at six per centum per annum on deferred payments until paid, running from the date of notice to pay the additional fifteen per centum, but advance payments may be received at any time. Upon full payment of the purchase price patent shall issue for the lands, and no qualification or limitation shall be required of any purchaser or patentee except that he be a citizen of the United States. Such patent shall also contain a grant of a water right appurtenant to the land: *Provided*, That any person who has made an entry which is now valid and subsisting, or who has a preference right to make entry, for any irrigable land embraced within the limits of the auxiliary project, may purchase said land at the price of \$2.50 per acre and shall be subject to the same payments for the irrigation works as is required of persons holding private lands under the provisions of section one hereof: *Provided further*, That the purchasers or owners of the land to be irrigated under said auxiliary reclamation project shall also agree to pay to the United States the total actual cost of the works of said auxiliary reclamation project in the event that the actual cost of said works shall exceed the estimated cost thereof. [39 Stat.]

Sec. 3. [Auxiliary reclamation fund.] That the moneys received under the provisions of this act shall be paid into the Treasury of the United States and be covered into a separate fund known as the auxiliary reclamation fund of the Yuma project, Arizona. [39 Stat.]

Sec. 4. [Use of fund—Payment of charges—Operation and maintenance of works to be turned over to landowners.] That the money in the said auxiliary reclamation fund of the Yuma project, Arizona, shall be available for the construction or completion of irrigation works for the said auxiliary project or unit to the extent of the moneys received on account thereof in connection with the sale of the lands therein. The landowners shall pay the cost of operation and maintenance, and the charges to cover such cost as fixed by the Secretary of the Interior shall be paid each year in advance of the delivery of water. Upon the announcement by the Secretary of the Interior of the completion of the said auxiliary project or unit thereof, the operation and maintenance of the irrigation works shall, as soon as practicable, be turned over to an organization representing a majority of the landowners, to be operated and maintained by them

at their expense in accordance with a contract therefor to be made with the Secretary of the Interior. [39 Stat.]

Sec. 5. [Application of surplus funds.] Any surplus of funds paid on account of construction remaining after completion thereof, and that any money remaining in said separate fund known as the auxiliary reclamation fund of the Yuma project, Arizona, after completion of the said auxiliary project and after reimbursement of the reclamation fund for the proportionate share of works built by means of the latter fund shall be credited to the cost of operation and maintenance of the works of the said auxiliary project, and any balance thereof on hand when the said auxiliary project is taken over, as provided in section four, shall be paid to the contracting organization. [39 Stat.]

Sec. 6. [Reclamation law applicable.] That the provisions of the reclamation act of June seventeenth, nineteen hundred and two, and acts amendatory thereof and supplementary thereto, known as the reclamation law, shall be applicable to such auxiliary project, except any portions of such acts as may be in conflict with the provisions hereof. [39 Stat.]

Sec. 7. [Rules and regulations.] That the Secretary of the Interior is hereby authorized to perform any and all acts and to make such rules and regulations as may be necessary and proper for the purpose of carrying the provisions of this act into full force and effect. [39 Stat.]

PATENTS AND FINAL WATER-RIGHT CERTIFICATES.

An act to amend section one of the act of August 9, 1912, providing for patents on reclamation entries, and for other purposes. (Act of Feb. 15, 1917, ch. —, 39 Stat., —.)

[Sec. 1. Issue of patents and final water-right certificates—Payment in full required.] That the proviso to section one of the act of August ninth, nineteen hundred and twelve (Thirty-seventh Statutes, page two hundred and sixty-five), entitled "An act providing for patents on reclamation entries, and for other purposes," be amended to read as follows:

"*Provided*, That no such patent or final water-right certificate shall issue until after the payment of all sums due the United States on account of such land or water right at the time of the submission of proof entitling the homestead or desert-land entryman to such patent or the purchaser to such final water-right certificate." [39 Stat.]

Under the provisions of this act patents may issue on reclamation entries where all water-right charges due at the time the entryman submits proof of reclamation of one-half of the irrigable area of the land embraced in his entry have been

paid, regardless of the fact that other water-right charges may accrue and be unpaid prior to the issuance of patent. General Land Office Circular No. 534, March 17, 1917.

SPECIAL FEDERAL RECLAMATION LEGISLATION.

The act of April 23, 1904 (33 Stat., 302), as amended by section 15 of the act of May 29, 1908 (35 Stat., 448), provides for the disposition and irrigation of lands within the limits of the Flathead Indian Reservation, Mont.

The act of April 27, 1904 (33 Stat., 352), authorizes the reclamation and disposition of irrigable lands in the ceded Crow Indian Reservation in Montana.

The joint resolution of Congress, approved April 28, 1904 (33 Stat., 591), directs an investigation of the waters of Lower Colorado River.

The act of March 3, 1905 (33 Stat., 1045), provides for the construction of dams across Yellowstone River, Mont., in connection with irrigation works.

The act of March 6, 1906 (34 Stat., 53), authorizes the reclamation and disposal of surplus irrigable lands in the Yakima Indian Reservation, Wash. See Opinion Assistant Attorney General, August 10, 1906, 35 L. D., 110.

Section 12 of the act of March 22, 1906 (34 Stat., 82), provides for the disposition, under the reclamation act, of lands in the diminished Colville Indian Reservation, Wash.

The act of June 9, 1906 (34 Stat., 228), authorizes the disposition of lands in the abandoned Fort Shaw Military Reservation, Mont., under the reclamation act.

The act of March 3, 1909 (35 Stat., 782), authorizes the Secretary of the Interior to make allotments of Indian lands on the reclamation projects in such areas as he may deem proper, not exceeding the amount therein named. See 36 L. D., 135.

The deficiency appropriation act of June 30, 1906 (34 Stat., 663), provides for office accommodations for the Reclamation Service at Washington.

The sundry civil appropriation act of March 4, 1907 (34 Stat., 1357), makes provision for the Elephant Butte Dam.

The sundry civil appropriation act of May 27, 1908 (35 Stat., 350), authorizes the purchase of books and periodicals for the Reclamation Service, and permits assignments of pay by employees of the service.

The Indian appropriation act of March 3, 1909 (35 Stat., 797), contains a provision as to disposal of Indian lands on the Crow Reservation subject to the reclamation law.

The act making appropriations for the Department of Agriculture, approved March 4, 1909 (35 Stat., 1045), provides for investigation of reclamation lands by that department.

Paragraph 5, section 10, act of June 20, 1910 (36 Stat., 564), provides for the disposition of school lands in reclamation projects in the State of New Mexico.

Paragraph 5, section 28, act of June 20, 1910 (36 Stat., 574), provides for the disposition of school lands in reclamation projects in the State of Arizona.

Section 1 of the act of June 22, 1910 (36 Stat., 583), authorizes the withdrawal and reclamation of classified coal land, patents for such lands to reserve to the United States the coal deposits therein.

The act making appropriations for the Department of Agriculture, approved August 10, 1912 (37 Stat., 277), provides for cooperation between the Bureau of Plant Industry and the Reclamation Service.

The act of August 21, 1912 (37 Stat., 322), authorizes conveyance of block 31, of Powell, Shoshone project, Wyoming, for school purposes.

The Indian appropriation act approved August 24, 1912 (37 Stat., 518), suggests cooperation between the Bureau of Indian Affairs and the Reclamation Service.

The act of September 30, 1913 (38 Stat., 113), authorizes the President, whenever in his judgment it is proper or necessary, to provide for the opening of lands withdrawn from entry, by settlement in advance of entry, by drawing, or by such other method as he may deem advisable in the interest of equal opportunity and good administration. Section 2 of said act provides that where the Secretary of the Interior is authorized to make restoration of lands previously withdrawn he may also restrict the restoration as provided in section 1.

The act of July 17, 1914 (38 Stat., 510), extends to the Flathead irrigation project, Montana, the provisions of the act of June 23, 1910 (36 Stat., 592), authorizing assignments of reclamation homestead entries, and the provisions of the act of August 9, 1912 (37 Stat., 265), providing for the issuance of final certificates and patents upon reclamation homestead entries upon the submission of proof of reclamation and of the payment of all the charges, including the water-right charges due in connection therewith, to the date of such final certificates and patents. See Special Regulations for Flathead Indian Irrigation Project, March 10, 1915, 44 L. D., 12-21.

The act of September 5, 1914 (38 Stat., 712), authorizes second homestead or desert-land entries where former entries are lost, forfeited, or abandoned, through no fault of the entryman.

The Indian appropriation act of May 18, 1916 (39 Stat., 123-141), among other things, contains provisions as to work done by the

Reclamation Service upon the Blackfeet, Flathead, and Fort Peck projects, Montana, provides for a dam across Yakima River to irrigate lands on Yakima Indian Reservation, Wash.; and directs that provision be made for the irrigation of 6,310 acres of Indian land in Salt River Valley, Ariz.

The act of July 8, 1916 (39 Stat., 351), authorizes a contract with the Santa Fe Railroad for a certain right of way at the Elephant Butte Dam, N. Mex.

The act of August 11, 1916 (39 Stat., 506), authorizes the appraisal and sale of the Boise & Arrowrock Railroad, Idaho.

The act of February 26, 1917 (39 Stat., —), authorizes the appraisal and sale to the Great Northern Railway Co. of certain lands of the Milk River and Fort Peck projects, Montana.

SYNOPSIS OF STATE AND TERRITORIAL ENACTMENTS IN REFERENCE TO FEDERAL RECLAMATION.

ARIZONA.

Employees of the Geological Survey are authorized to enter upon lands within Arizona for the making of surveys authorized by Congress. (Sess. Laws, 1903, p. 137.)

The Senate and House of Representatives are memorialized to investigate a contract between the Reclamation Service and the Pacific Gas & Electric Co. (Sess. Laws, 1909, p. 297.)

Congress is memorialized to secure certain land from Mexico which if acquired would be a part of the Yuma project. (Sess. Laws, 1909, p. 298.)

Act providing for cooperation between the United States and State irrigation districts, approved March 8, 1917. (Sess. Laws, 1917, p. —.)

CALIFORNIA.

The State will cooperate with the Federal Government's irrigation plans provided it does not "interfere with the water already appropriated or in reservoirs or now in use for irrigation purposes, or domestic purposes, under the laws of this State." (Sess. Laws, 1905, p. 152.)

An act to provide for the recordation of contracts and subscription agreements to stock in water-users' associations. (Sess. Laws, 1907, p. 749; codified as Gen. Laws, Cal., Deering, 1909, act 2983.)

An act granting rights of way for lines, roads, structures, levees, canals, and excavations to the United States over the public lands of California. (Sess. Laws, 1907, p. 848; codified as Gen. Laws Cal., Deering, 1909, act 2873.)

Congress is memorialized to take steps to secure the prompt completion of the Klamath project. (Sess. Laws, 1911, p. 1478.)

Senate joint resolution No. 24, filed April 11, 1913, protests against the United States changing the natural conditions of Lake Tahoe through use of same as a reclamation reservoir. (Statutes, 1913, p. 1670.)

Act providing for cooperation between the United States and State irrigation districts. (Statutes, 1917, p. —.)

COLORADO.

For the sale of State canal No. 3 (Gunnison Tunnel) to the Reclamation Service. (Sess. Laws, 1903, p. 292, codified at Rev. Stat., Colo., 1908, p. 1614, secs. 6928, 6929.)

For the sale of State lands to the United States for irrigation projects. (Sess. Laws, 1905, p. 328; sec. 22; codified at Rev. Stat., 1908, p. 1220, sec. 5183.)

Grant of right of way to the United States over State lands for irrigation purposes. (Sess. Laws, 1905, p. 332, sec. 35; codified at Rev. Stat., Colo., 1908, p. 1223, sec. 5196; amended, Sess. Laws, 1909, p. 503.)

Fees for the organization of a water-users' association, and for recording stock subscriptions, etc. (Sess. Laws, 1905, p. 360; codified at Rev. Stat., 1908, p. 400, secs. 1900, and 1001.)

An appropriation to permit the attorney general to investigate the acts of the Federal Government in reference to the public lands and waters. (Sess. Laws, 1909, p. 199.)

The sum of \$15,000 is appropriated to pay the expenses of an investigation of the Rio Grande and to prove the injustice of the prohibition by the Federal Government against the construction of canals and reservoirs in Colorado. (Sess. Laws, 1909, p. 206.)

For the sale of State lands within a reclamation project. (Sess. Laws, 1909, p. 505.)

Appropriating \$50,000* to investigate the Interior Department, the Reclamation Service, and the Forest Service to ascertain whether the right of Colorado to control the waters in the State is being infringed. (Sess. Laws, 1911, p. 671.)

Senate joint memorial No. 6, approved April 12, 1915, opposing control of water in Colorado by the United States in connection with grants of rights of way across public lands. (Sess. Laws, 1915, p. 607.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

IDAHO.

For the borrowing of money by irrigation districts from the reclamation fund, see also Session Laws, 1907, page 496. (Sess. Laws, 1903, p. 166; codified at Rev. Codes, 1908, secs. 2396, 2397, 2398.)

The United States is granted right of way over State lands (Sess. Laws, 1905, p. 374; codified at Rev. Codes, 1908, sec. 1638); provides for the sale of State lands under irrigation projects in accordance with farm-unit classifications (codified at Rev. Codes, 1908, sec. 1583); exempts water users' associations from the payment of an annual corporation tax (codified at Rev. Codes, 1908, sec. 2842); and permits the recordation of such association's articles of incorporation and stock subscriptions without charges for the printed form. (Codified at Rev. Codes, 1908, sec. 2843.)

Urging the prompt beginning of work on the pumping unit of the Minidoka project. (Sess. Laws, 1907, p. 580, house joint memorial No. 5.)

Congress is memorialized to enact into law House bill No. 6651 for the benefit of settlers on the Minidoka project. (Sess. Laws, 1907, p. 584, house joint memorial No. 4.)

For the irrigation of State lands in and adjacent to Government reclamation projects and authorizing the State land board to make contracts for that purpose. (Sess. Laws, 1909, p. 331.)

Memorializing Congress to enact legislation for the relief of settlers on the Minidoka project. (Sess. Laws, 1909, p. 445.)

Memorializing Congress to amend the reclamation act so as to provide for the commutation of homestead entries, or to permit the entrymen to obtain a conditional title after five years. (Sess. Laws, 1909, p. 448.)

Authorizing the county commissioners to secure data, etc., for the purpose of procuring Government aid to irrigation enterprises. (Sess. Laws, 1911, p. 25.)

Act approved March 15, 1915, in reference to statements in bonds of irrigation districts when works have been constructed or approved by the Reclamation Service. (Sess. Laws, 1915, p. 295.)

Irrigation district act of March 16, 1915. (Sess. Laws, 1915, p. 304.)

Senate joint memorial No. 2, passed February 2-11, 1915, petitioning Congress to reclaim 3,000,000 acres of arid land in Idaho. (Sess. Laws, 1915, p. 403.)

Senate joint memorial No. 7, passed February 26-27, 1915, petitioning Congress against construction of Palouse project. (Sess. Laws, 1915, p. 408.)

House joint memorial No. 3, passed February 19-26, 1915, recommending Congress to enact Senate bill 6827, relating to the reclamation of arid, semiarid, swamp, and overflow lands. (Sess. Laws, 1915, p. 415.)

Joint memorial No. 5, passed March 5-6, 1915, requesting Congress for further investigation and completion of the King Hill project, Idaho. (Sess. Laws, 1915, p. 417.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

KANSAS.

Instructing the Kansas delegation in Congress to attempt to secure an appropriation from the reclamation fund to develop the underflow of the Arkansas River to irrigate arid lands in the western part of Kansas. (Sess. Laws, 1905, p. 895; see also p. 899.)

MONTANA.

The United States may make appropriations of water in same manner and under the same conditions as individuals, and three years are allowed within which to commence work. (Sess. Laws, 1905, p. 80; codified Rev. Codes, 1907, sec. 4846.)

For the sale of State lands within United States irrigation project according to farm units as fixed by United States and subject to limitations of reclamation act. (Sess. Laws, 1905, p. 116; codified at Rev. Codes, 1907, sec. 2211.) Also provides for conveyance to United States of any land owned by the State needed for irrigation works and grants right of way over all State lands for United States reclamation canals, etc. (Codified at Rev. Codes, 1907, sec. 2212.)

Exempts water users' associations organized in conformity with requirements of United States from incorporation and annual franchise tax. (Sess. Laws, 1905, p. 150; codified at Rev. Codes, 1907, sec. 167.)

Grants United States right to condemn existing canals when needed or condemn a right to enlarge any such canal. (Sess. Laws, 1905, p. 153; codified at Rev. Codes, 1907, sec. 4891.)

Joint resolution approves cooperation and aid of Federal Government in reclaiming lands and instructs all officers of State to facilitate operation of government in all ways not inconsistent with law. (Sess. Laws, 1905, p. 356.)

Joint resolution petitioning deferment in payment of water charges, Lower Yellowstone project. (Sess. Laws, 1911, p. 556.)

Joint resolution petitioning for establishment of pleasure grounds within reclamation projects. (Sess. Laws, 1911, p. 559.)

Joint resolution petitioning legislation to relieve settlers on reclamation project in Montana east of Rocky Mountains. (Sess. Laws, 1911, p. 562.)

House joint memorial No. 1, approved February 25, 1913, petitioning Congress for relief of settlers under the Lower Yellowstone project. (Sess. Laws, 1913, p. 564.)

House memorial No. 1, approved February 3, 1915, petitioning Congress for an appropriation of \$500,000 for the Flathead project. (Sess. Laws, 1915, p. 472.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

NEBRASKA.

Grant to the United States of right of way for ditches, etc., over State lands. (Sess. Laws, 1905, p. 599; codified at Comp. Stat., 1909, sec. 6047a, p. 1791.)

Authorizing county clerks and recorders to accept printed books from water users' associations organized under the national reclamation act and to use the same for recording stock subscriptions of such association. (Sess. Laws, 1905, p. 294; codified at Comp. Stat., 1909 sec. 2453a, p. 686.)

For the sale of State school lands to a lessee of lands situate within the area irrigated or to be irrigated from irrigation works constructed or controlled by the United States and to a lessee of any 40-acre tract or Government subdivision one-half of which is under irrigation. (Sess. Laws, 1907, p. 437; codified at Comp. Stat., 1909, sec. 5835, p. 1726-1728.)

Memorializing Congress to issue bonds for \$500,000,000 to be used in constructing reservoirs primarily for the purpose of irrigation and secondarily for the purpose of improving the rivers and checking floods, the money to be expended under the authority of the Reclamation Service. (Sess. Laws, 1909, p. 669.)

Authorizing the United States to furnish legal appropriators with stored and developed waters for irrigation purposes. (Sess. Laws, 1911, p. 495.)

For the appropriation of water by the United States. (Sess. Laws, 1911, p. 507.)

Joint resolution and memorial to Congress, No. 54, approved March 5, 1915, requesting Federal investigation of irrigation possibilities in Lodge Pole Valley, Nebr. (Laws, 1915, p. 653.)

Act providing for cooperation between the United States and State irrigation districts. (Laws, 1917, p. —.)

NEVADA.

For the cooperation of the State with the Secretary of the Interior in carrying out the purposes of the reclamation act. (Sess. Laws, 1903, p. 18, chap. 4.) Section 2 of said chapter was repealed by Laws, 1905, page 66, section 1. Section 3 was amended by Laws, 1905, page 193. Section 18 was amended by Laws, 1905, page 66, section 2, and new sections 23-28 were added by Laws, 1905, page 67, section 3. The whole of said chapter 4 was repealed by Laws, 1907, page 38, section 32. (*See also* Sess. Laws, 1911, p. 440.)

Granting the United States right of way for irrigation purposes over State lands, providing for the sale of State lands in projects in accordance with the farm unit classification, and providing for the recording of water users' association articles of incorporation and stock subscriptions. (Sess. Laws, 1905, p. 93, chap. 64.)

Assembly memorial and joint resolution to the Secretary of the Interior relative to Federal aid toward the development of artesian and subterranean sources of water supply. (Sess. Laws, 1905, p. 271.)

For cooperation between the State engineer and the Reclamation Service. (Sess. Laws, 1907, p. 32, sec. 10.) Nevada Session Laws, 1907, chapter 18, page 30, is amended in many particulars by Laws, 1909, page 31, chapter 31.

Granting the United States the right of eminent domain. (Sess. Laws, 1907, p. 279.)

For the appointment by the State engineer of Reclamation Service engineers as assistant State engineers. (Sess. Laws, 1909, p. 32, sec. 3.)

Congress memorialized to pass an act allowing extensions of time for payment of water-right charges on reclamation projects. (Sess. Laws, 1909, p. 337, assembly joint and concurrent resolution No. 9.)

Congress requested to build fishways in Government dams, etc. (Sess. Laws, 1909, p. 337, senate joint and concurrent resolution No. 4.)

The Secretary of the Interior memorialized to have a fish ladder put in the Derby Dam, Truckee-Carson project. (Sess. Laws, 1909, p. 338, assembly joint and concurrent resolution No. 6.)

Relative to the Truckee River and Lake Tahoe. (Sess. Laws, 1911, p. 453, senate concurrent resolution No. 5.)

An act consenting to the use by the United States of Lake Tahoe, its waters, bed, shores, and capability of use for reservoir purposes, in connection with the Truckee-Carson project. (Act Mar. 6, 1913, Statutes, 1913, p. 35.)

"SECTION 1. That for the purpose of aiding the Truckee-Carson reclamation project now being carried out by the Reclamation Service of the United States of America, under the act of Congress approved June 17, 1902 (32 Stat., p. 388), known as the reclamation act, and acts amendatory thereof or supplementary thereto, consent is hereby given to the use by the United States of America of Lake Tahoe, situated partly in the State of California and partly in the State of Nevada, and the waters, beds, shores, and capability of use for reservoir purposes thereof, in such manner and to such extent as the United States of America through its lawful agencies shall think proper for such purpose, and as fully as the State of Nevada could use the same: *Provided, however,* That the consent hereby given is without prejudice to any existing rights that persons or corporations may have in Lake Tahoe or the Truckee River."

Joint and concurrent resolution No. 4, approved February 13, 1915, asking Congress to appropriate \$100,000 for the Carson Valley unit, Truckee-Carson project. (Statutes, 1915, p. 517.)

Senate joint and concurrent resolution No. 8, approved March 6, 1915, asking Congress to appropriate moneys for reclamation without asking return of same by the settlers. (Statutes, 1915, p. 521.)

Act providing for cooperation between the United States and State irrigation districts. (Statutes, 1917, p. —.)

NEW MEXICO.

An act to aid in the construction of the Reclamation Service dam at Elephant Butte. (Sess. Laws, 1905, p. 109.)

For the withdrawal of water in favor of United States, whenever the Territorial irrigation engineer is advised that the United States intends to utilize said waters. (Sess. Laws, 1905, p. 277, sec. 22; amended, see Sess. Laws, 1907, p. 85, sec. 40.)

Protesting against the passage by the Senate of H. R. 17939, relating to the construction of a dam and reservoir on the Rio Grande in New Mexico. (Sess. Laws, 1905, p. 382, joint memorial 3.)

The United States granted the right of eminent domain for irrigation purposes. (Sess. Laws, 1907, p. 74.)

For the filing in the office of the Territorial engineer of the evidence of the right to use water from any works constructed by the United States, upon assignment. (Sess. Laws, 1907, p. 85, sec. 36.)

For a vote of thanks to the officers of the Reclamation Service and for a celebration at Carlsbad, N. Mex. (Sess. Laws, 1907, p. 305, joint res. No. 10.)

Protest to the Secretary of the Interior against the holding of certain agricultural lands from entry, said lands being withdrawn under the reclamation act. (Sess. Laws, 1907, p. 309, joint memorial No. 1.)

Cities obtaining water from Government irrigation projects. (Sess. Laws, 1909, p. 205.)

Protesting to the Secretary of the Interior against further holding of agricultural lands from entry. (Sess. Laws, 1909, p. 435, joint res. No. 20.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

NORTH DAKOTA.

Grants to United States of right of eminent domain for irrigation purposes. (Sess. Laws, 1905, p. 45, sec. 3; codified at Rev. Codes, 1905, sec. 7606.)

For the appropriation of waters by the United States. (Sess. Laws, 1905, p. 54, sec. 36; codified at Rev. Codes, 1905, sec. 7639.)

Grants to the United States right of way over State lands for irrigation purposes. (Sess. Laws, 1905, p. 59, sec. 60; codified at Rev. Codes, 1905, sec. 7663.)

For the sale of State lands to the United States when needed for irrigation works, also for the sale of State lands within projects according to the farm-unit classification. (Sess. Laws, 1905, p. 59-60, sec. 61; codified at Rev. Codes, 1905, sec. 7664.)

The State or municipalities may join the water-users' associations, and such association is granted right of way over State lands. (Sess. Laws, 1905, p. 345; codified at Rev. Codes, secs. 7667, 7668.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1915, p. —.)

OKLAHOMA.

Government irrigation works shall, while under Government control, not be subject to Territorial inspection. (Sess. Laws, 1905, p. 284.)

"The evidence of the right to use water from any works constructed by the United States or its duly authorized agencies shall in like manner be filed in the office of the Territorial engineer upon assignment." (Sess. Laws, 1905, p. 286.)

The appropriation of water by the United States. (Sess. Laws, 1905, p. 287.)

The United States is granted right of way over Territorial lands for ditches, etc., constructed by authority of the United States. (Sess. Laws, 1905, p. 295.)

The disposal of Territorial lands within reclamation projects is provided for. (Sess. Laws, 1905, p. 295, sec. 47.)

Water-users' associations are exempted from taxes; their articles of incorporation and stock subscriptions shall be recorded without charge except for the words actually written; and the acquirement by water-users' associations of prior water rights is provided for. (Sess. Laws, 1905, p. 296, secs. 48-50.)

Senate concurrent resolution No. 14, adopted February 8-13, 1913, memorializing the Reclamation Service to proceed with the construction of the Lawton project. (Sess. Laws, 1913, p. 251.)

Irrigation district law, permitting cooperation with the United States, approved March 29, 1915. (Sess. Laws, 1915, p. 485.)

Senate joint resolution No. 38, approved March 30, 1915, authorizing State board of agriculture to include lands of the Cameron State School of Agriculture in the Lawton project. (Sess. Laws, 1915, p. 711.)

OREGON.

The Malheur and all other water users' associations are exempt from the payment of annual corporation taxes. (Sess. Laws, 1905, p. 139.)

For the incorporation of the Malheur irrigation district to cooperate with the Reclamation Service. (Sess. Laws, 1905, pp. 195-203; Lord's Oregon Laws, secs. 6218-6231.) This act was repealed by chapter 40 of 1911, Session Laws, page 63.

For the appropriation of water by the United States. Plans must be filed within three years from date of notice, and work must be

authorized by the United States within four years. (Sess. Laws, 1905, chap. 228, sec. 2, p. 401; codified at Lord's Oregon Laws, sec. 6588.)

For a State hydrographic survey and a State adjudication of water rights on all streams where construction is contemplated by the United States. (Sess. Laws, 1905, chap. 228, sec. 3, p. 402; codified at Lord's Oregon Laws, sec. 6589.)

For hydrographic and topographic surveys and for cooperation with the United States. (Sess. Laws, 1905, chap. 228, sec. 10, p. 404; codified at Lord's Oregon Laws, sec. 6590.)

For the sale of State lands on reclamation projects by farm units. All State lands needed for construction works are to be conveyed to the United States without charge. (Sess. Laws, 1905, chap. 228, sec. 11, p. 405; codified at Lord's Oregon Laws, sec. 6591.)

The United States is granted right of way over State lands for ditches, canals, or reservoirs for irrigation purposes. (Sess. Laws, 1905, chap. 228, sec. 12, p. 405; codified at Lord's Oregon Laws, sec. 6592.)

The Klamath Water Users' Association is relieved from the payment of annual corporation taxes, and refunds to the corporation the taxes already paid. (Sess. Laws, 1907, p. 162.)

The Umatilla River Water Users' Association is relieved from the payment of the annual license fee imposed on private corporations. (Sess. Laws, 1907, p. 287.)

For the inclosing and use of and for tree planting on portions of country roads within the limits of irrigation projects under the control of the Reclamation Service. (Sess. Laws, 1907, p. 300; codified at Lord's Oregon Laws, 1910, secs. 6472, 6473.)

Appropriation for the support, maintenance, and development of an experiment station upon the Umatilla project. (Sess. Laws, 1909, p. 156, chap. 96.)

The United States is granted the right of eminent domain for irrigation purposes. (Sess. Laws, 1909, p. 342, chap. 216, sec. 72.)

The Oregon Senators and Representatives in Congress are requested to use their influence with the Reclamation Service to the end that the Reclamation Service may take up the Malheur irrigation project. (House joint memorial No. 4, Laws, 1909, p. 504.)

Irrigation districts authorized to enter into contracts with the Reclamation Service. (Laws, 1909, chap. 219, p. 364, sec. 1; Lord's Oregon Laws, sec. 6181.)

Irrigation districts authorized to enter into contract with the United States in lieu of all or part of bond issue. (Laws, 1909, chap. 219, p. 364, sec. 2; Lord's Oregon Laws, sec. 6183.)

Provides for taxation of irrigation districts to pay indebtedness to the United States. (Laws, 1909, chap. 219, p. 369, sec. 7; Lord's Oregon Laws, sec. 6193.)

The United States is granted the right of way across lands in the State for the construction of irrigation works. The act also provides for the enlargement by the United States of existing ditches or canals. (Sess. Laws, 1911, chap. 238, p. 421.)

The Oregon Senators and Representatives in Congress are requested to use their earnest endeavors to secure the speedy completion of the Klamath and Umatilla projects. (Senate joint memorial No. 3; Sess. Laws, 1911, p. 531.)

The enactment by Congress is urged of a law that desert-land-entry patent within irrigation projects shall issue upon satisfactory proofs of reclamation under desert-land laws subject to the lien of the Government for the payment of the water-right charges. (Senate joint memorial No. 7; Sess. Laws, 1911, p. 533.)

Congress is requested to reenact section 9 of the reclamation act. (House joint memorial No. 1; Sess. Laws, 1911, p. 535.)

The maps, drawings, etc., in connection with the abandoned Owyhee project it is requested be turned over to the Owyhee irrigation district. (House joint memorial No. 14; Sess. Laws, 1911, p. 542.)

Act providing for cooperation with the United States in an investigation of State water resources, filed February 21, 1913. (Gen. Laws, 1913, p. 141.)

House joint memorial No. 6, filed February 4, 1913, requesting Congress to extend time for payment of water charges on reclamation projects 25 years. (Gen. Laws, 1913, p. 836.)

Act providing for cooperation between the United States and State irrigation districts. (Gen. Laws, 1917, p. ---.)

SOUTH DAKOTA.

The United States is granted the right of eminent domain over State lands for the construction of irrigation works. (Sess. Laws, 1905, p. 201, sec. 3. See also Sess. Laws, 1907, p. 373, sec. 3.)

For the filing in the State engineer's office of the evidence of the right to use water from any works constructed by the United States, upon assignment. (Sess. Laws, 1905, p. 208, sec. 31.)

The appropriation of water by the United States. (Sess. Laws, 1905, p. 209, sec. 36. See also Sess. Laws, 1907, p. 384, sec. 37.)

The United States is granted right of way for irrigation purposes over State lands. (Sess. Laws, 1905, p. 214, sec. 57. See also Sess. Laws, 1907, p. 388, sec. 58, amended by Sess. Laws, 1911, p. 467, chap. 262.)

For the sale of State lands in reclamation projects in accordance with farm-unit classification. (Sess. Laws, 1905, p. 214, sec. 58. See also Sess. Laws, 1907, p. 389, sec. 59.)

The County Commissioners are authorized to accept for use as public records books of water users' associations. (Sess. Laws, 1907, p. 488, chap. 249.)

An act relating to powers of water-users' associations organized in conformity with the requirements of the United States under the reclamation act. (Sess. Laws, 1909, p. 155.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

TEXAS.

An act authorizing the operation of the reclamation act in Texas. (Sess. Laws, 1905, p. 151; art. 5011, 5011a, Civil Statutes, 1914.)

Water-users' associations exempted from the payment of charter fees and franchise taxes. (Sess. Laws, 1911, p. 42; art. 1174n, Civil Statutes, 1914.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. 172.)

UTAH.

House joint resolution extending welcome to the Eleventh National Irrigation Congress. (Sess. Laws, 1903, p. 3.)

An act providing for a commission to secure to Utah the benefits of the reclamation fund. (Sess. Laws, 1903, p. 60.) This commission was abolished by Session Laws, 1905, page 76, chapter 70.

The State engineer may cooperate with the National Government in carrying out the reclamation act. (Sess. Laws, 1905, p. 146, sec. 6; codified at Compiled Laws, 1907, sec. 1266.)

Water rights from Government canals shall be appurtenant to land. (Sess. Laws, 1905, p. 162, sec. 60; codified at Compiled Laws, 1907, sec. 1288x31.)

Provisions in regard to the incorporation of water users' association. (Sess. Laws, 1905, p. 169; codified at Compiled Laws, 1907, sec. 316.)

Right of way granted to United States over State lands (Sess. Laws, 1905, p. 176; see Compiled Laws, 1907, sec. 2364), and provides that State lands within an irrigation project shall be sold in accordance with farm-unit classification. (See Compiled Laws, 1907, sec. 2336x.)

For the recording of articles of incorporation and stock subscriptions of water-users' associations. (Sess. Laws, 1907, p. 32; codified at Compiled Laws, 1907, sec. 632x4.)

The right of eminent domain is granted to the United States for "all public uses authorized by the Government of the United States." (Sess. Laws, 1907, p. 143, chap. 114, sec. 1; see Compiled Laws, 1907, sec. 3588. See also Sess. Laws, 1909, p. 50.)

Act providing for cooperation between the United States and State irrigation districts. (Sess. Laws, 1917, p. —.)

WASHINGTON.

The United States is granted the right of eminent domain for irrigation purposes, and the right to use a natural watercourse for the delivery of water. Provision is made for the withdrawal by the State of water on behalf of the United States, for the appropriation of water by the United States in the same manner as other water is appropriated, for a right of way over State lands for Government irrigation works, for the sale of State lands in irrigation projects in accordance with the farm-unit classification, for the exemption of water users' associations from the payment of incorporation tax, and for the recording of such associations' articles of incorporation and stock subscriptions without charge for the printed forms. (Sess. Laws, 1905, p. 180, chap. 88. See also Rem. & Bal. An. Codes and Statutes of Wash., secs. 6408-6415.)

Congress is memorialized to take up the construction of an irrigation project along the east bank of the Columbia River in Stevens County from the mouth of Colville River south to the Ward Flats. (Sess. Laws, 1905, p. 380, senate joint memorial No. 4.)

Congress is memorialized to take up the Okanogan project. (Sess. Laws, 1905, p. 382, senate joint memorial No. 6.)

Congress is petitioned to relieve certain homestead entrymen on the Okanogan project. (Sess. Laws, 1907, p. 778, senate joint memorial No. 5.)

An act relieving the Tieton Water Users' Association for expenditures made by the United States on the construction of State Road No. 5. (Sess. Laws, 1909, p. 421.)

Congress is petitioned to appropriate money for the Big Bend project. (Sess. Laws, 1909, p. 1032, house joint memorial No. 2.)

Senate joint memorial No. 2, passed January 21-23, 1913, urging Congress to provide for survey of and report upon Palouse project. (Sess. Laws, 1913, p. 682.)

Act providing cooperation between the United States and State irrigation districts, approved March 16, 1917. (Sess. Laws, 1917, p. 742.)

WYOMING.

For the construction, etc., of reservoirs. Reference is also made to reservoirs constructed by the United States. (Sess. Laws, 1903, p. 75. Sec. 7 is amended; Sess. Laws, 1905, p. 14. Codified at Comp. Stat., 1910, sec. 746.)

The United States is granted right of way over State land for reclamation purposes. (Sess. Laws, 1905, p. 134. Codified at Comp. Stat., 1910, sec. 3890.)

**VARIOUS GENERAL STATUTES OF THE UNITED STATES
FREQUENTLY REFERRED TO IN CONNECTION WITH THE
OPERATIONS OF THE RECLAMATION SERVICE.**

ADVERTISING BY THE UNITED STATES.

SEC. 3709 R. S. All purchases and contracts for supplies or services in any of the departments of the Government, except for personal services, shall be made by advertising a sufficient time previously for proposals respecting the same when the public exigencies do not require the immediate delivery of the articles or performance of the service. When immediate delivery or performance is required by the public exigency the articles or service required may be procured by open purchase or contract at the places and in the manner in which such articles are usually bought and sold, or such services engaged, between individuals.

SEC. 3710 R. S. Whenever proposals for supplies have been solicited, the parties responding to such solicitation shall be duly notified of the time and place of opening the bids and be permitted to be present either in person or by attorney, and a record of each bid shall then and there be made.

SEC. 3828 R. S. No advertisement, notice, or proposal for any executive department of the Government, or for any bureau thereof, or for any office therewith connected, shall be published in any newspaper whatever, except in pursuance of a written authority for such publication from the head of such department; and no bill for any such advertising, or publication, shall be paid, unless there be presented with such bill a copy of such written authority.

(Extract from) An Act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1879, and for other purposes. (Act June 20, 1878, 20 Stat., 206.)

* * * * *

That hereafter all advertisements, notices, proposals for contracts, and all forms of advertising required by law for the several departments of the Government, may be paid for at a price not to exceed the commercial rates charged to private individuals, with the usual discounts; such rates to be ascertained from sworn statements to be furnished by the proprietors or publishers of the newspapers proposing so to advertise. [20 Stat., 216.]

* * * * *

CONTRACTS WITH THE UNITED STATES.

The following are sections of the United States Revised Statutes referring to Government contracts:

TRANSFER OF CONTRACTS PROHIBITED.

SEC. 3737. No contract or order, or any interest therein, shall be transferred by the party to whom such contract or order is given to any other party, and any such transfer shall cause the annulment of the contract or order transferred, so far as the United States are concerned. All rights of action, however, for any breach of such contract by the contracting parties are reserved to the United States.

MEMBER OF CONGRESS CLAUSE.

SEC. 3741. In every such contract or agreement to be made or entered into, or accepted by or on behalf of the United States, there shall be inserted an express condition that no Member of or Delegate to Congress shall be admitted to any share or part of such contract or agreement or to any benefit to arise thereupon. (See act Mar. 4, 1909, 35 Stat., 1088, secs. 114-116, inclusive.)

CONTRACTS TO BE FILED IN AUDITOR'S OFFICE.

SEC. 3743 (as amended by act of July 31, 1894, 28 Stat., 210). All contracts to be made, by virtue of any law, and requiring the advance of money, or in any manner connected with the settlement of public accounts, shall be deposited promptly in the offices of the auditors of the Treasury according to the nature of the contracts. *Provided*, That this section shall not apply to the existing laws in regard to the contingent funds of Congress.

THE RETURNS OFFICE.

SEC. 3744. It shall be the duty of the Secretary of War, of the Secretary of the Navy, and of the Secretary of the Interior, to cause and require every contract made by them severally on behalf of the Government, or by their officers under them appointed to make such contracts, to be reduced to writing, and signed by the contracting parties with their names at the end thereof; a copy of which shall be filed by the officer making and signing the contract in the Returns Office of the Department of the Interior, as soon

after the contract is made as possible, and within thirty days, together with all bids, offers, and proposals to him made by persons to obtain the same, and with a copy of any advertisement he may have published inviting bids, offers, or proposals for the same. All the copies and papers in relation to each contract shall be attached together by a ribbon and seal, and marked by numbers in regular order, according to the number of papers composing the whole return. (See secs. 512, 515.)

SEC. 3745. It shall be the further duty of the officer, before making his return, according to the preceding section, to affix to the same his affidavit in the following form, sworn to before some magistrate having authority to administer oaths: "I do solemnly swear (or affirm) that the copy of contract hereto annexed is an exact copy of a contract made by me personally with ———; that I made the same fairly, without any benefit or advantage to myself, or allowing any such benefit or advantage corruptly to the said ———, or any other person; and that the papers accompanying include all those relating to the said contract, as required by the statute in such case made and provided."

SEC. 3746. Every officer who makes any contract, and fails or neglects to make return of the same, according to the provisions of the two preceding sections, unless from unavoidable accident or causes not within his control, shall be deemed guilty of a misdemeanor, and shall be fined not less than \$100 nor more than \$500, and imprisoned not more than six months.

SEC. 3747. It shall be the duty of the Secretary of War, of the Secretary of the Navy, and of the Secretary of the Interior to furnish every officer appointed by them with authority to make contracts on behalf of the Government with a printed letter of instructions, setting forth the duties of such officer, under the two preceding sections, and also to furnish therewith forms, printed in blank, of contracts to be made, and the affidavit of returns required to be affixed thereto, so that all the instruments may be as nearly uniform as possible.

BONDS OF CONTRACTORS ON PUBLIC WORKS.

An act to amend an act approved August thirteenth, eighteen hundred and ninety-four, entitled "An act for the protection of persons furnishing materials and labor for the construction of public works." (Act Feb. 24, 1905, 33 Stat., 811.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the act entitled "An act for the protection of persons furnishing materials and labor for the construction of public works," approved August thirteenth, eighteen hundred and ninety-four, is hereby amended so as to read as follows:

"That hereafter any person or persons entering into a formal contract with the United States for the construction of any public building, or the prosecution and completion of any public work, or for repairs upon any public building or public work, shall be required, before commencing such work, to execute the usual penal bond, with good and sufficient sureties, with the additional obligation that such contractor or contractors shall promptly make payments to all persons supplying him or them with labor and materials in the prosecution of the work provided for in such contract; and any person, company, or corporation who has furnished labor or materials used in the construction or repair of any public building or public work, and payment for which has not been made, shall have the right to intervene and be made a party to any action instituted by the United States on the bond of the contractor, and to have their rights and claims adjudicated in such action and judgment rendered thereon, subject, however, to the priority of the claim and judgment of the United States. If the full amount of the liability of the surety on said bond is insufficient to pay the full amount of said claims and demands, then, after paying the full amount due the United States, the remainder shall be distributed pro rata among said interveners. If no suit should be brought by the United States within six months from the completion and final settlement of said contract, then the person or persons supplying the contractor with labor and materials shall, upon application therefor, and furnishing affidavit to the department under the direction of which said work has been prosecuted that labor or materials for the prosecution of such work has been supplied by him or them, and payment for which has not been made, be furnished with a certified copy of said contract and bond, upon which he or they shall have a right of action, and shall

be, and are hereby, authorized to bring suit in the name of the United States in the circuit court of the United States in the district in which said contract was to be performed and executed, irrespective of the amount in controversy in such suit, and not elsewhere, for his or their use and benefit, against said contractor and his sureties and to prosecute the same to final judgment and execution: *Provided*, That where suit is instituted by any of such creditors on the bond of the contractor it shall not be commenced until after the complete performance of said contract and final settlement thereof, and shall be commenced within one year after the performance and final settlement of said contract, and not later: *And provided further*, That where suit is so instituted by a creditor or by creditors, only one action shall be brought, and any creditor may file his claim in such action and be made party thereto within one year from the completion of the work under said contract, and not later. If the recovery on the bond should be inadequate to pay the amounts found due to all of said creditors, judgment shall be given to each creditor pro rata of the amount of the recovery. The surety on said bond may pay into court, for distribution among said claimants and creditors, the full amount of the sureties' liability, to wit, the penalty named in the bond, less any amount which said surety may have had to pay to the United States by reason of the execution of said bond, and upon so doing the surety will be relieved from further liability: *Provided further*, That in all suits instituted under the provisions of this act such personal notice of the pendency of such suits, informing them of their right to intervene as the court may order, shall be given to all known creditors, and in addition thereto notice of publication in some newspaper of general circulation, published in the State or town where the contract is being performed, for at least three successive weeks, the last publication to be at least three months before the time limited therefor."

EIGHT-HOUR-DAY STATUTES.

SEC. 3738 R. S. Eight hours shall constitute a day's work for all laborers, workmen, and mechanics who may be employed by or on behalf of the Government of the United States. (See sec. 4, reclamation act of June 17, 1902, 32 Stat., 388, *ante*.)

(Extracts from) An act relating to the limitation of the hours of daily service of laborers and mechanics employed upon the public works of the United States and of the District of Columbia. (Act Aug. 1, 1892, 27 Stat., 340.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the service and employment of all laborers and mechanics who are now or may hereafter be employed by the Government of the United States, by the District of Columbia, or by any contractor or subcontractor upon any of the public works of the United States or of the said District of Columbia, is hereby limited and restricted to eight hours in any one calendar day, and it shall be unlawful for any officer of the United States Government or the District of Columbia or any such contractor or subcontractor whose duty it shall be to employ, direct, or control the services of such laborers or mechanics to require or permit any such laborer or mechanic to work more than eight hours in any calendar day except in case of extraordinary emergency.

SEC. 2. That any officer or agent of the Government of the United States or of the District of Columbia, or any contractor or subcontractor whose duty it shall be to employ, direct, or control any laborer or mechanic employed upon any of the public works of the United States or of the District of Columbia who shall intentionally violate any provision of this act, shall be deemed guilty of a misdemeanor, and for each and every such offense shall, upon conviction, be punished by a fine not to exceed \$1,000, or by imprisonment for not more than six months, or by both such fine and imprisonment, in the discretion of the court having jurisdiction thereof.

* * * * *

An act limiting the hours of daily service of laborers and mechanics employed upon work done for the United States, or for any Territory, or for the District of Columbia, and for other purposes. (Act June 19, 1912, 37 Stat., 127.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That every contract hereafter made to which the United States, any Territory, or the District of Columbia is a party, and every such contract made for

or on behalf of the United States, or any Territory, or said District, which may require or involve the employment of laborers or mechanics shall contain a provision that no laborer or mechanic doing any part of the work contemplated by the contract, in the employ of the contractor or any subcontractor contracting for any part of said work contemplated, shall be required or permitted to work more than eight hours in any one calendar day upon such work; and every such contract shall stipulate a penalty for each violation of such provision in such contract of \$5 for each laborer or mechanic for every calendar day in which he shall be required or permitted to labor more than eight hours upon said work; and any officer or person designated as inspector of the work to be performed under any such contract, or to aid in enforcing the fulfillment thereof, shall, upon observation or investigation, forthwith report to the proper officer of the United States, or of any Territory, or of the District of Columbia, all violations of the provisions of this act directed to be made in every such contract, together with the name of each laborer or mechanic who has been required or permitted to labor in violation of such stipulation and the day of such violation, and the amount of the penalties imposed according to the stipulation in any such contract shall be directed to be withheld for the use and benefit of the United States, the District of Columbia, or the Territory contracting by the officer or person whose duty it shall be to approve the payment of the moneys due under such contract, whether the violation of the provisions of such contract is by the contractor or any subcontractor. Any contractor or subcontractor aggrieved by the withholding of any penalty as hereinbefore provided shall have the right within six months thereafter to appeal to the head of the department making the contract on behalf of the United States or the Territory, and in the case of a contract made by the District of Columbia to the Commissioners thereof, who shall have power to review the action imposing the penalty, and in all such appeals from such final order whereby a contractor or subcontractor may be aggrieved by the imposition of the penalty hereinbefore provided such contractor or subcontractor may within six months after decision by such head of a department or the Commissioners of the District of Columbia file a claim in the Court of Claims, which shall have jurisdiction to hear and decide the matter in like manner as in other cases before said court.

SEC. 2. That nothing in this act shall apply to contracts for transportation by land or water, or for the transmission of intelligence, or for the purchase of supplies by the Government, whether manufactured to conform to particular specifications or not, or for such materials or articles as may usually be bought in open market, except armor and armor plate, whether made to conform to par-

ticular specifications or not, or to the construction or repair of levees or revetments necessary for protection against floods or overflows on the navigable waters of the United States: *Provided*, That all classes of work which have been, are now, or may hereafter be performed by the Government shall, when done by contract, by individuals, firms, or corporations for or on behalf of the United States or any of the Territories or the District of Columbia, be performed in accordance with the terms and provisions of section one of this act. The President, by Executive order, may waive the provisions and stipulations in this act as to any specific contract or contracts during time of war or a time when war is imminent, and until January first, nineteen hundred and fifteen, as to any contract or contracts entered into in connection with the construction of the Isthmian Canal. No penalties shall be imposed for any violation of such provision in such contract due to any extraordinary events or conditions of manufacture, or to any emergency caused by fire, famine, or flood, by danger to life or to property, or by other extraordinary event or condition on account of which the President shall subsequently declare the violation to have been excusable. Nothing in this act shall be construed to repeal or modify the act entitled "An act relating to the limitation of the hours of daily service of laborers and mechanics employed upon the public works of the United States and of the District of Columbia" being chapter three hundred and fifty-two of the laws of the Fifty-second Congress, approved August first, eighteen hundred and ninety-two, as modified by the acts of Congress approved February twenty-seventh, nineteen hundred and six, and June thirtieth, nineteen hundred and six, or apply to contracts which have been or may be entered into under the provisions of appropriation acts approved prior to the passage of this act.

SEC. 3. That this act shall become effective and be in force on and after January first, nineteen hundred and thirteen.

COMPENSATION ACT.

An act to provide compensation for employees of the United States suffering injuries while in the performance of their duties, and for other purposes. (Act Sept. 7, 1916, 39 Stat., 742.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the United States shall pay compensation as hereinafter specified for the disability or death of an employee resulting from a personal injury sustained while in the performance of his duty, but no compensation shall be paid if the injury or death is caused by the willful misconduct of the employee or by the employee's intention to bring about the injury or death of himself or of another, or if intoxication of the injured employee is the proximate cause of the injury or death.

SEC. 2. That during the first three days of disability the employee shall not be entitled to compensation except as provided in section nine. No compensation shall at any time be paid for such period.

SEC. 3. That if the disability is total the United States shall pay to the disabled employee during such disability a monthly compensation equal to sixty-six and two-thirds per centum of his monthly pay, except as hereinafter provided.

SEC. 4. That if the disability is partial the United States shall pay to the disabled employee during such disability a monthly compensation equal to sixty-six and two-thirds per centum of the difference between his monthly pay and his monthly wage-earning capacity after the beginning of such partial disability. The commission may, from time to time, require a partially disabled employee to make an affidavit as to the wages which he is then receiving. In such affidavit the employee shall include a statement of the value of housing, board, lodging, and other advantages which are received from the employer as a part of his remuneration and which can be estimated in money. If the employee, when required, fails to make such affidavit, he shall not be entitled to any compensation while such failure continues, and the period of such failure shall be deducted from the period during which compensation is payable to him.

SEC. 5. That if a partially disabled employee refuses to seek suitable work or refuses or neglects to work after suitable work is offered to, procured by, or secured for him, he shall not be entitled to any compensation.

SEC. 6. That the monthly compensation for total disability shall not be more than \$66.67 nor less than \$33.33, unless the employee's monthly pay is less than \$33.33, in which case his monthly compensation shall be the full amount of his monthly pay. The monthly compensation for partial disability shall not be more than \$66.67. In the case of persons who at the time of the injury were minors or employed in a learner's capacity and who were not physically or mentally defective, the commission shall, on any review after the time when the monthly wage-earning capacity of such persons would probably, but for the injury, have increased, award compensation based on such probable monthly wage-earning capacity. The commission may, on any review after the time when the monthly wage-earning capacity of the disabled employee would probably, irrespective of the injury, have decreased on account of old age, award compensation based on such probable monthly wage-earning capacity.

SEC. 7. That as long as the employee is in receipt of compensation under this act, or, if he has been paid a lump sum in commutation of installment payments, until the expiration of the period during which such installment payments would have continued, he shall not receive from the United States any salary, pay, or remuneration whatsoever except in return for services actually performed, and except pensions for service in the Army or Navy of the United States.

SEC. 8. That if at the time the disability begins the employee has annual or sick leave to his credit he may, subject to the approval of the head of the department, use such leave until it is exhausted, in which case his compensation shall begin on the fourth day of disability after the annual or sick leave has ceased.

SEC. 9. That immediately after an injury sustained by an employee while in the performance of his duty, whether or not disability has arisen, and for a reasonable time thereafter, the United States shall furnish to such employee reasonable medical, surgical, and hospital services and supplies unless he refuses to accept them. Such services and supplies shall be furnished by United States medical officers and hospitals, but where this is not practicable shall be furnished by private physicians and hospitals designated or approved by the commission and paid for from the employees' compensation fund. If necessary for the securing of proper medical, surgical, and hospital treatment, the employee, in the discretion of the commission, may be furnished transportation at the expense of the employees' compensation fund.

SEC. 10. That if death results from the injury within six years the United States shall pay to the following persons for the following periods a monthly compensation equal to the following percentages of the deceased employee's monthly pay, subject to the modification that no compensation shall be paid where the death takes place

more than one year after the cessation of disability resulting from such injury, or, if there has been no disability preceding death, more than one year after the injury:

(A) To the widow, if there is no child, thirty-five per centum. This compensation shall be paid until her death or marriage.

(B) To the widower, if there is no child, thirty-five per centum if wholly dependent for support upon the deceased employee at the time of her death. This compensation shall be paid until his death or marriage.

(C) To the widow or widower, if there is a child, the compensation payable under clause (A) or clause (B) and in addition thereto ten per centum for each child, not to exceed a total of sixty-six and two-thirds per centum for such widow or widower and children. If a child has a guardian other than the surviving widow or widower, the compensation payable on account of such child shall be paid to such guardian. The compensation payable on account of any child shall cease when he dies, marries, or reaches the age of eighteen, or, if over eighteen, and incapable of self-support, becomes capable of self-support.

(D) To the children, if there is no widow or widower, twenty-five per centum for one child and ten per centum additional for each additional child, not to exceed a total of sixty-six and two-thirds per centum, divided among such children share and share alike. The compensation of each child shall be paid until he dies, marries, or reaches the age of eighteen, or, if over eighteen and incapable of self-support, becomes capable of self-support. The compensation of a child under legal age shall be paid to its guardian.

(E) To the parents, if one is wholly dependent for support upon the deceased employee at the time of his death and the other is not dependent to any extent, twenty-five per centum; if both are wholly dependent, twenty per centum to each; if one is or both are partly dependent, a proportionate amount in the discretion of the commission.

The above percentages shall be paid if there is no widow, widower, or child. If there is a widow, widower, or child, there shall be paid so much of the above percentages as, when added to the total percentages payable to the widow, widower, and children, will not exceed a total of sixty-six and two-thirds per centum.

(F) To the brothers, sisters, grandparents, and grandchildren, if one is wholly dependent upon the deceased employee for support at the time of his death, twenty per centum to such dependent; if more than one are wholly dependent, thirty per centum, divided among such dependents share and share alike; if there is no one of them wholly dependent, but one or more partly dependent, ten per centum divided among such dependents share and share alike.

The above percentages shall be paid if there is no widow, widower, child, or dependent parent. If there is a widow, widower, child, or dependent parent, there shall be paid so much of the above percentages as, when added to the total percentage payable to the widow, widower, children, and dependent parents, will not exceed a total of sixty-six and two-thirds per centum.

(G) The compensation of each beneficiary under clauses (E) and (F) shall be paid for a period of eight years from the time of the death, unless before that time he, if a parent or grandparent, dies, marries, or ceases to be dependent, or, if a brother, sister, or grandchild, dies, marries, or reaches the age of eighteen, or, if over eighteen and incapable of self-support, becomes capable of self-support. The compensation of a brother, sister, or grandchild under legal age shall be paid to his or her guardian.

(H) As used in this section, the term "child" includes stepchildren, adopted children, and posthumous children, but does not include married children. The terms "brother" and "sister" include stepbrothers and stepsisters, half brothers and half sisters, and brothers and sisters by adoption, but do not include married brothers or married sisters. All of the above terms and the term "grandchild" include only persons who at the time of the death of the deceased employee are under eighteen years of age or over that age and incapable of self-support. The term "parent" includes step-parents and parents by adoption. The term "widow" includes only the decedent's wife living with or dependent for support upon him at the time of his death. The term "widower" includes only the decedent's husband dependent for support upon her at the time of her death. The terms "adopted" and "adoption" as used in this clause include only legal adoption prior to the time of the injury.

(I) Upon the cessation of compensation under this section to or on account of any person, the compensation of the remaining persons entitled to compensation for the unexpired part of the period during which their compensation is payable shall be that which such persons would have received if they had been the only persons entitled to compensation at the time of the decedent's death.

(J) In case there are two or more classes of persons entitled to compensation under this section and the apportionment of such compensation, above provided, would result in injustice, the commission may, in its discretion, modify the apportionment to meet the requirements of the case.

(K) In computing compensation under this section, the monthly pay shall be considered not to be more than \$100 nor less than \$50, but the total monthly compensation shall not exceed the monthly pay computed as provided in section twelve.

(L) If any person entitled to compensation under this section, whose compensation by the terms of this section ceases upon his marriage, accepts any payments of compensation after his marriage he shall be punished by a fine of not more than \$2,000 or by imprisonment for not more than one year, or by both such fine and imprisonment.

SEC. 11. That if death results from the injury within six years the United States shall pay to the personal representative of the deceased employee burial expenses not to exceed \$100, in the discretion of the commission. In the case of an employee whose home is within the United States, if his death occurs away from his home office or outside of the United States, and if so desired by his relatives, the body shall, in the discretion of the commission, be embalmed and transported in a hermetically sealed casket to the home of the employee. Such burial expenses shall not be paid and such transportation shall not be furnished where the death takes place more than one year after the cessation of disability resulting from such injury, or, if there has been no disability preceding death, more than one year after the injury.

SEC. 12. That in computing the monthly pay the usual practice of the service in which the employee was employed shall be followed. Subsistence and the value of quarters furnished an employee shall be included as part of the pay, but overtime pay shall not be taken into account.

SEC. 13. That in the determination of the employee's monthly wage-earning capacity after the beginning of partial disability, the value of housing, board, lodging, and other advantages which are received from his employer as a part of his remuneration and which can be estimated in money shall be taken into account.

SEC. 14. That in cases of death or of permanent total or permanent partial disability, if the monthly payment to the beneficiary is less than \$5 a month, or if the beneficiary is or is about to become a non-resident of the United States, or if the commission determines that it is for the best interests of the beneficiary, the liability of the United States for compensation to such beneficiary may be discharged by the payment of a lump sum equal to the present value of all future payments of compensation computed at four per centum true discount compounded annually. The probability of the beneficiary's death before the expiration of the period during which he is entitled to compensation shall be determined according to the American Experience Table of Mortality; but in case of compensation to the widow or widower of the deceased employee, such lump sum shall not exceed sixty months' compensation. The probability of the happening of any other contingency affecting the amount or duration of the compensation shall be disregarded.

SEC. 15. That every employee injured in the performance of his duty, or some one on his behalf, shall, within forty-eight hours after the injury, give written notice thereof to the immediate superior of the employee. Such notice shall be given by delivering it personally or by depositing it properly stamped and addressed in the mail.

SEC. 16. That the notice shall state the name and address of the employee, the year, month, day, and hour when and the particular locality where the injury occurred, and the cause and nature of the injury, and shall be signed by and contain the address of the person giving the notice.

SEC. 17. That unless notice is given within the time specified or unless the immediate superior has actual knowledge of the injury, no compensation shall be allowed, but for any reasonable cause shown, the commission may allow compensation if the notice is filed within one year after the injury.

SEC. 18. That no compensation under this act shall be allowed to any person, except as provided in section thirty-eight, unless he or some one on his behalf shall, within the time specified in section twenty, make a written claim therefor. Such claim shall be made by delivering it at the office of the commission or to any commissioner or to any person whom the commission may by regulation designate, or by depositing it in the mail properly stamped and addressed to the commission or to any person whom the commission may by regulation designate.

SEC. 19. That every claim shall be made on forms to be furnished by the commission and shall contain all the information required by the commission. Each claim shall be sworn to by the person entitled to compensation or by the person acting on his behalf, and, except in case of death, shall be accompanied by a certificate of the employee's physician stating the nature of the injury and the nature and probable extent of the disability. For any reasonable cause shown the commission may waive the provisions of this section.

SEC. 20. That all original claims for compensation for disability shall be made within sixty days after the injury. All original claims for compensation for death shall be made within one year after the death. For any reasonable cause shown the commission may allow original claims for compensation for disability to be made at any time within one year.

SEC. 21. That after the injury the employee shall, as frequently and at such times and places as may be reasonably required, submit himself to examination by a medical officer of the United States or by a duly qualified physician designated or approved by the commission. The employee may have a duly qualified physician designated and paid by him present to participate in such examination. For all examinations after the first the employee shall, in the discretion of the

commission, be paid his reasonable travelling and other expenses and loss of wages incurred in order to submit to such examination. If the employee refuses to submit himself for or in any way obstructs any examination, his right to claim compensation under this act shall be suspended until such refusal or obstruction ceases. No compensation shall be payable while such refusal or obstruction continues, and the period of such refusal or obstruction shall be deducted from the period for which compensation is payable to him.

SEC. 22. That in case of any disagreement between the physician making an examination on the part of the United States and the employee's physician the commission shall appoint a third physician, duly qualified, who shall make an examination.

SEC. 23. That fees for examinations made on the part of the United States under sections twenty-one and twenty-two by physicians who are not already in the service of the United States shall be fixed by the commission. Such fees, and any sum payable to the employee under section twenty-one shall be paid out of the appropriation for the work of the commission.

SEC. 24. That immediately after an injury to an employee resulting in his death or in his probable disability, his immediate superior shall make a report to the commission containing such information as the commission may require, and shall thereafter make such supplementary reports as the commission may require.

SEC. 25. That any assignment of a claim for compensation under this act shall be void and all compensation and claims therefor shall be exempt from all claims of creditors.

SEC. 26. If an injury or death for which compensation is payable under this act is caused under circumstances creating a legal liability upon some person other than the United States to pay damages therefor, the commission may require the beneficiary to assign to the United States any right of action he may have to enforce such liability of such other person or any right which he may have to share in any money or other property received in satisfaction of such liability of such other person, or the commission may require said beneficiary to prosecute said action in his own name.

If the beneficiary shall refuse to make such assignment or to prosecute said action in his own name when required by the commission, he shall not be entitled to any compensation under this act.

The cause of action when assigned to the United States may be prosecuted or compromised by the commission, and if the commission realizes upon such cause of action, it shall apply the money or other property so received in the following manner: After deducting the amount of any compensation already paid to the beneficiary and the expenses of such realization or collection, which sum shall be placed to the credit of the employee's compensation fund, the surplus, if any,

shall be paid to the beneficiary and credited upon any future payments of compensation payable to him on account of the same injury.

SEC. 27. That if an injury or death for which compensation is payable under this act is caused under circumstances creating a legal liability in some person other than the United States to pay damages therefor, and a beneficiary entitled to compensation from the United States for such injury or death receives, as a result of a suit brought by him or on his behalf, or as a result of a settlement made by him or on his behalf, any money or other property in satisfaction of the liability of such other person, such beneficiary shall, after deducting the costs of suit and a reasonable attorney's fee, apply the money or other property so received in the following manner:

(A) If his compensation has been paid in whole or in part, he shall refund to the United States the amount of compensation which has been paid by the United States and credit any surplus upon future payments of compensation payable to him on account of the same injury. Any amount so refunded to the United States shall be placed to the credit of the employees' compensation fund.

(B) If no compensation has been paid to him by the United States, he shall credit the money or other property so received upon any compensation payable to him by the United States on account of the same injury.

SEC. 28. That a commission is hereby created, to be known as the United States Employees' Compensation Commission, and to be composed of three commissioners appointed by the President, by and with the advice and consent of the Senate, one of whom shall be designated by the President as chairman. No commissioner shall hold any other office or position under the United States. No more than two of said commissioners shall be members of the same political party. One of said commissioners shall be appointed for a term of two years, one for a term of four years, and one for a term of six years, and at the expiration of each of said terms the commissioner then appointed shall be appointed for a period of six years. Each commissioner shall receive a salary of \$4,000 a year. The principal office of said commission shall be in Washington, District of Columbia, but the said commission is authorized to perform its work at any place deemed necessary by said commission, subject to the restrictions and limitations of this act.

SEC. 28a. Upon the organization of said commission and notification to the heads of all executive departments that the commission is ready to take up the work devolved upon it by this act, all commissions and independent bureaus by or in which payments for compensation are now provided, together with the adjustment and settlement of such claims, shall cease and determine, and such executive departments, commissions, and independent bureaus shall

transfer all pending claims to said commission to be administered by it. The said commission may obtain, in all cases, in addition to the reports provided in section twenty-four, such information and such reports from employees of the departments as may be agreed upon by the commission and the heads of the respective departments. All clerks and employees now exclusively engaged in carrying on said work in the various executive departments, commissions, and independent bureaus shall be transferred to, and become employees of, the commission at their present grades and salaries.

Sno. 29. That the commission, or any commissioner by authority of the commission, shall have power to issue subpoenas for and compel the attendance of witnesses within a radius of one hundred miles, to require the production of books, papers, documents, and other evidence, to administer oaths, and to examine witnesses upon any matter within the jurisdiction of the commission.

Sno. 30. That the commission shall have such assistants, clerks, and other employees as may be from time to time provided by Congress. They shall be appointed from lists of eligibles to be supplied by the Civil Service Commission, and in accordance with the civil-service law.

Sno. 31. That the commission shall submit annually to the Secretary of the Treasury estimates of the appropriations necessary for the work of the commission.

Sno. 32. That the commission is authorized to make necessary rules and regulations for the enforcement of this act, and shall decide all questions arising under this act.

Sno. 33. That the commission shall make to Congress at the beginning of each regular session a report of its work for the preceding fiscal year, including a detailed statement of appropriations and expenditures, a detailed statement showing receipts of and expenditures from the employees' compensation fund, and its recommendations for legislation.

Sno. 34. That for the fiscal year ending June thirtieth, nineteen hundred and seventeen, there is hereby authorized to be appropriated, from any money in the Treasury not otherwise appropriated, the sum of \$50,000 for the work of the commission, including salaries of the commissioners and of such assistants, clerks, and other employees as the commission may deem necessary, and for traveling expenses, expenses of medical examinations under sections twenty-one and twenty-two, reasonable traveling and other expenses and loss of wages payable to employees under section twenty-one, rent and equipment of offices, purchase of books, stationery, and other supplies, printing and binding to be done at the Government Printing Office, and other necessary expenses.

SEC. 35. That there is hereby authorized to be appropriated, from any money in the Treasury not otherwise appropriated, the sum of \$500,000, to be set aside as a separate fund in the Treasury, to be known as the employees' compensation fund. To this fund there shall be added such sums as Congress may from time to time appropriate for the purpose. Such fund, including all additions that may be made to it, is hereby authorized to be permanently appropriated for the payment of the compensation provided by this act, including the medical, surgical, and hospital services and supplies provided by section nine and the transportation and burial expenses provided by sections nine and eleven. The commission shall submit annually to the Secretary of the Treasury estimates of the appropriations necessary for the maintenance of the fund.

SEC. 36. The commission, upon consideration of the claim presented by the beneficiary and the report furnished by the immediate superior and the completion of such investigation as it may deem necessary, shall determine and make a finding of facts thereon and make an award for or against payment of the compensation provided for in this act. Compensation when awarded shall be paid from the employees' compensation fund.

SEC. 37. That if the original claim for compensation has been made within the time specified in section twenty, the commission may, at any time, on its own motion or on application, review the award, and, in accordance with the facts found on such review, may end, diminish, or increase the compensation previously awarded, or, if compensation has been refused or discontinued, award compensation.

SEC. 38. That if any compensation is paid under a mistake of law or of fact, the commission shall immediately cancel any award under which such compensation has been paid and shall recover, as far as practicable, any amount which has been so paid. Any amount so recovered shall be placed to the credit of the employees' compensation fund.

SEC. 39. That whoever makes, in any affidavit required under section four or in any claim for compensation, any statement, knowing it to be false, shall be guilty of perjury and shall be punished by a fine of not more than \$2,000, or by imprisonment for not more than one year, or by both such fine and imprisonment.

SEC. 40. That wherever used in this act—

The singular includes the plural and the masculine includes the feminine.

The term "employee" includes all civil employees of the United States and of the Panama Railroad Company.

The term "commission" shall be taken to refer to the United States Employees' Compensation Commission provided for in section twenty-eight.

The term "physician" includes surgeons.

The term "monthly pay" shall be taken to refer to the monthly pay at the time of the injury.

SEC. 41. That all acts or parts of acts inconsistent with this Act are hereby repealed: *Provided, however,* That for injuries occurring prior to the passage of this act compensation shall be paid under the law in force at the time of the passage of this act: *And provided further,* That if an injury or death for which compensation is payable under this Act is caused under circumstances creating a legal liability in the Panama Railroad Company to pay damages therefor under the laws of any State, Territory, or possession of the United States or of the District of Columbia or of any foreign country, no compensation shall be payable until the person entitled to compensation releases to the Panama Railroad Company any right of action which he may have to enforce such liability of the Panama Railroad Company, or until he assigns to the United States any right which he may have to share in any money or other property received in satisfaction of such liability of the Panama Railroad Company.

SEC. 42. That the President may, from time to time, transfer the administration of this act so far as employees of the Panama Canal and of the Panama Railroad Company are concerned to the governor of the Panama Canal, and so far as employees of the Alaskan Engineering Commission are concerned to the chairman of that commission, in which cases the words "commission" and "its" wherever they appear in this act shall, so far as necessary to give effect to such transfer, be read "governor of the Panama Canal" or "chairman of the Alaskan Engineering Commission," as the case may be, and "his"; and the expenses of medical examinations under sections twenty-one and twenty-two, and the reasonable traveling and other expenses and loss of wages payable to employees under section twenty-one, shall be paid out of appropriations for the Panama Canal or for the Alaskan Engineering Commission or out of funds of the Panama Railroad, as the case may be, instead of out of the appropriation for the work of the commission.

In the case of compensation to employees of the Panama Canal or of the Panama Railroad Company for temporary disability, either total or partial, the President may authorize the governor of the Panama Canal to waive, at his discretion, the making of the claim required by section eighteen. In the case of alien employees of the Panama Canal or of the Panama Railroad Company, or of any class or classes of them, the President may remove or modify the minimum limit established by section six on the monthly compensation for disability and the minimum limit established by clause (K) of section ten on the monthly pay on which death compensation is to be computed. The President may authorize the governor of the Panama

Canal and the chairman of the Alaskan Engineering Commission to pay the compensation provided by this act, including the medical, surgical, and hospital services and supplies provided by section nine and the transportation and burial expenses provided by sections nine and eleven, out of the appropriations for the Panama Canal and for the Alaskan Engineering Commission, such appropriations to be reimbursed for such payments by the transfer of funds from the employees' compensation fund.

ASSIGNMENTS OF CLAIMS.

SEC. 3477 R. S. All transfers and assignments made of any claim upon the United States, or of any part or share thereof, or interest therein, whether absolute or conditional, and whatever may be the consideration therefor, and all powers of attorney, orders, or other authorities for receiving payment of any such claim, or of any part or share thereof, shall be absolutely null and void, unless they are freely made and executed in the presence of at least two attesting witnesses, after the allowance of such a claim, the ascertainment of the amount due, and the issuing of a warrant for the payment thereof. Such transfers, assignments, and powers of attorney must recite the warrant for payment, and must be acknowledged by the person making them before an officer having authority to take acknowledgments of deeds, and shall be certified by the officer; and it must appear by the certificate that the officer, at the time of the acknowledgment, read and fully explained the transfer, assignment, or warrant of attorney to the person acknowledging the same.

**EXPENSES OF FEDERAL EMPLOYEES WHEN ACTING AS GOVERN-
MENT WITNESSES.**

Sac. 850 R. S. When any clerk or other officer of the United States is sent away from his place of business as a witness for the Government, his necessary expenses, stated in items and sworn to, in going, returning, and attendance on the court shall be audited and paid; but no mileage or other compensation in addition to his salary shall in any case be allowed.

LEAVE OF ABSENCE FOR GOVERNMENT EMPLOYEES.

(Extract from) An act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1898, and for other purposes. (Act Mar. 16, 1898, 30 Stat., 277.)

* * * * *

SEC. 7. That section five of the act making appropriations for legislative, executive, and judicial expenses, approved March third, eighteen hundred and ninety-three, is hereby amended to read as follows:

"Hereafter it shall be the duty of the heads of the several executive departments, in the interest of the public service, to require of all clerks and other employees, of whatever grade or class, in their respective departments, not less than seven hours of labor each day, except Sundays and days declared public holidays by law or Executive order: *Provided*, That the heads of the departments may, by special order, stating the reason, further extend the hours of any clerk or employee in their departments, respectively; but in case of an extension it shall be without additional compensation: *Provided further*, That the head of any department may grant thirty days' annual leave with pay in any one year to each clerk or employee: *And provided further*, That where some member of the immediate family of a clerk or employee is afflicted with a contagious disease and requires the care and attendance of such employee, or where his or her presence in the department would jeopardize the health of fellow clerks, and in exceptional and meritorious cases, where a clerk or employee is personally ill, and where to limit the annual leave to thirty days in any one calendar year would work peculiar hardship, it may be extended, in the discretion of the head of the department, with pay, not exceeding thirty days in any one case or in any one calendar year.

"This section shall not be construed to mean that so long as a clerk or employee is borne upon the rolls of the department in excess of the time herein provided for or granted that he or she shall be entitled to pay during the period of such excessive absence, but that the pay shall stop upon the expiration of the granted leave.

* * * * *

(Extract from) An act making appropriations to supply deficiencies in the appropriations for the fiscal year ending June 30, 1898, and for prior years, and for other purposes. (Act July 7, 1898, 30 Stat., 652.)

* * * * *

Nothing contained in section seven of the act making appropriations for legislative, executive, and judicial expenses of the Gov-

ernment for the fiscal year eighteen hundred and ninety-nine, approved March fifteenth, eighteen hundred and ninety-eight, shall be construed to prevent the head of any executive department from granting thirty days' annual leave with pay in any one year to a clerk or employee, notwithstanding such clerk or employee may have had during such year not exceeding thirty days' leave with pay on account of sickness as provided in said section seven.

(Extract from) An act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1899, and for other purposes. (Act Feb. 24, 1899, 30 Stat., 844.)

Sec. 4. * * * *Provided, That the thirty days' annual leave of absence with pay in any one year to clerks and employees in the several executive departments authorized by existing law shall be exclusive of Sundays and legal holidays.*

PATENTS IN FEE TO PURCHASERS OF INDIAN LANDS.

An act to authorize the Secretary of the Interior to issue patents in fee to purchasers of Indian lands under any law now existing or hereafter enacted, and for other purposes. (Act May 26, 1908, 35 Stat., 444.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the lands, or any part thereof, allotted to any Indian, or any inherited interest therein, which can be sold under existing law by authority of the Secretary of the Interior, except the lands in Oklahoma and the States of Minnesota and South Dakota, may be sold, on the petition of the allottee or his heirs, on such terms and conditions and under such regulations as the Secretary of the Interior may prescribe; and the lands of a minor, or of a person deemed incompetent by the Secretary of the Interior to petition for himself, may be sold in the same manner, on the petition of the natural guardian in the case of infants, and in the case of Indians deemed incompetent as aforesaid, and of orphans without a natural guardian, on petition of a person designated for the purpose by the Secretary of the Interior. That when any Indian who has heretofore received or who may hereafter receive an allotment of land dies before the expiration of the trust period, the Secretary of the Interior shall ascertain the legal heirs of such Indian, and if satisfied of their ability to manage their own affairs, shall cause to be issued in their names a patent in fee simple for said lands; but if he finds them incapable of managing their own affairs, the land may be sold as hereinbefore provided: *Provided*, That the proceeds derived from all sales hereunder shall be used, during the trust period, for the benefit of the allottee or heir so disposing of his interest, under the supervision of the Commissioner of Indian Affairs: *And provided further*, That upon the approval of any sale hereunder by the Secretary of the Interior, he shall cause a patent in fee to issue in the name of the purchaser for the lands so sold: *And provided further*, That nothing in section one herein contained shall apply to the States of Minnesota and South Dakota.

See act of June 21, 1906, 34 Stat., 325,
as to sale of lands allotted to Indians.

See also act of March 1, 1907, 34 Stat.,
1015, in reference to conveyance of
Indian lands.

PERMITTING SUITS BY PATENTEES AGAINST THE UNITED STATES.

An act to provide additional protection for owners of patents of the United States, and for other purposes.
(Act June 25, 1910, 36 Stat., 351.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims: *Provided, however,* That said Court of Claims shall not entertain a suit or award compensation under the provisions of this act where the claim for compensation is based on the use by the United States of any article heretofore owned, leased, used by, or in possession of the United States: *Provided further,* That in any such suit the United States may avail itself of any and all defenses, general or special, which might be pleaded by a defendant in an action for infringement, as set forth in Title Sixty of the Revised Statutes, or otherwise: *And provided further,* That the benefits of this act shall not inure to any patentee who, when he makes such claim, is in the employment or service of the Government of the United States, or the assignee of any such patentee; nor shall this act apply to any device discovered or invented by such employee during the time of his employment or service.

TELEPHONE SERVICE FROM PRIVATE RESIDENCES.

(Extract from) an act making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1913, and for other purposes. (Act Aug. 23, 1912, 37 Stat., 200.)

* * * * *

SEC. 7. That no money appropriated by this or any other act shall be expended for telephone service installed in any private residence or private apartment or for tolls or other charges for telephone service from private residences or private apartments, except for long-distance telephone tolls required strictly for the public business, and so shown by vouchers duly sworn to and approved by the head of the department, division, bureau, or office in which the official using such telephone or incurring the expense of such tolls shall be employed.

* * * * *

**CERTAIN OFFICERS AUTHORIZED TO ADMINISTER OATHS TO
TRAVEL VOUCHERS, ETC.**

(Extract from) an act making appropriations for sundry civil expenses of the Government for the fiscal year ending June 30, 1913, and for other purposes. (Act Aug. 24, 1912, 37 Stat., 417.)

* * * * *

SEC. 8. After June thirtieth, nineteen hundred and twelve, postmasters, assistant postmasters, collectors of customs, collectors of internal revenue, chief clerks of the various executive departments and bureaus, or clerks designated by them for the purpose, the superintendent, the acting superintendent, custodian, and principal clerks of the various national parks and other Government reservations, superintendent, acting superintendents, and principal clerks of the different Indian superintendencies or Indian agencies, and chiefs of field parties are required, empowered, and authorized, when requested, to administer oaths, required by law or otherwise, to accounts for travel or other expenses against the United States, with like force and effect as officers having a seal; for such services when so rendered, or when rendered on demand after said date by notaries public, who at the time are also salaried officers or employees of the United States, no charge shall be made; and on and after July first, nineteen hundred and twelve, no fee or money paid for the services herein described shall be paid or reimbursed by the United States. (See 19 Comp. Dec., 181.)

* * * * *

FURNISHING COPIES OF DEPARTMENTAL RECORDS.

An act to make uniform charges for furnishing copies of records of the Department of the Interior and of its several bureaus. (Act Aug. 24, 1912, 37 Stat., 497.)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior, the head of any bureau, office, or institution, or any officer of that department, may, when not prejudicial to the interests of the Government, furnish authenticated or unauthenticated copies of any official books, records, papers, documents, maps, plats, or diagrams within his custody, and charge therefor the following fees. For all written copies, at the rate of 15 cents for each hundred words therein; for each photolithographic copy, 25 cents where such copies are authorized by law; for photographic copies, 15 cents for each sheet; and for tracings or blue prints the cost of the production thereof to be determined by the officer furnishing such copies, and in addition to these fees the sum of 25 cents shall be charged for each certificate of verification and the seal attached to authenticated copies: *Provided*, That there shall be no charge for the making of verification of copies required for official use by the officers of any branch of the Government: *Provided further*, That only a charge of 25 cents shall be made for furnishing authenticated copies of any rules, regulations, or instructions printed by the Government for gratuitous distribution.

SEC. 2. That nothing in this act shall be construed to limit or restrict in any manner the authority of the Secretary of the Interior to prescribe such rules and regulations as he may deem proper governing the inspection of the records of said department and its various bureaus by the general public, and any person having any particular interest in any of such records may be permitted to take copies of such records under such rules and regulations as may be prescribed by the Secretary of the Interior.

SEC. 3. That all authenticated copies furnished under this act shall be admitted in evidence equally with the originals thereof.

SEC. 4. That all officers who furnish authenticated copies under this act shall attest their authentication by the use of an official seal, which is hereby authorized for that purpose.

SEC. 5. That the act of Congress approved April nineteenth, nineteen hundred and four, chapter thirteen hundred and ninety-six, be, and the same is hereby, repealed; but nothing in this act

shall be so construed as to repeal the provisions of sections four hundred and ninety to four hundred and ninety-three, inclusive, and forty-nine hundred and thirty-four of the Revised Statutes, fixing the rates for patent fees; or the act approved March third, eighteen hundred and ninety-one, chapter five hundred and forty-one, fixing a rate for certifying printed copies of specifications and drawings of patents; or of section fourteen of the act of February twentieth, nineteen hundred and five, chapter five hundred and ninety-two, to authorize the registration of trade-marks used in commerce with foreign nations or among the several States or with Indian tribes, and to protect the same; nor shall anything in this act be construed to repeal any of the provisions of section eight of the act approved April twenty-sixth, nineteen hundred and six, chapter eighteen hundred and seventy-six, authorizing the officer having charge of the custody of any records pertaining to the enrollment of members of the Five Civilized Tribes of Indians to furnish certified copies of such records and charge for that service such fees as the Secretary of the Interior may prescribe; nor shall anything herein contained prevent the Secretary of the Interior, under his general power of supervision over Indian affairs, from prescribing such charges or fees for furnishing certified copies of the records of any Indian agency or Indian school as he may deem proper; and the said Secretary is hereby authorized to charge a fee of 25 cents for each certified copy issued by him as to the official character of any officer of his department.

SEC. 6. That all sums received under the provisions of this act shall be deposited in the Treasury to the credit of miscellaneous receipts.

RIGHT OF WAY FOR HIGHWAYS OVER PUBLIC LANDS.

SEC. 2477 R. S. The right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted.

OFFENSES AGAINST THE OPERATIONS OF THE GOVERNMENT.

The following are sections of the act of Congress approved March 4, 1909, entitled "An act to codify, revise, and amend the penal laws of the United States" (35 Stat., 1088), and became effective January 1, 1910. At the end of the sections are citations in parentheses referring to Federal statutes on the same subjects in force prior to January 1, 1910:

TIMBER ON PUBLIC LANDS.

SEC. 49. Whoever shall cut, or cause or procure to be cut, or shall wantonly destroy, or cause to be wantonly destroyed, any timber growing on the public lands of the United States; or whoever shall remove, or cause to be removed, any timber from said public lands, with intent to export or to dispose of the same; or whoever, being the owner, master, or consignee of any vessel, or the owner, director, or agent of any railroad, shall knowingly transport any timber so cut or removed from said lands, or lumber manufactured therefrom, shall be fined not more than \$1,000, or imprisoned not more than one year, or both. Nothing in this section shall prevent any miner or agriculturist from clearing his land in the ordinary working of his mining claim, or in the preparation of his farm for tillage, or from taking the timber necessary to support his improvements, or the taking of timber for the use of the United States. And nothing in this section shall interfere with or take away any right or privilege under any existing law of the United States to cut or remove timber from any public lands. (See 20 Stat., 89.)

SEC. 50. Whoever shall unlawfully cut, or aid in unlawfully cutting, or shall wantonly injure or destroy, or procure to be wantonly injured or destroyed, any tree, growing, standing, or being upon any land of the United States which, in pursuance of law, has been reserved or purchased by the United States for any public use, or upon any Indian reservation, or lands belonging to or occupied by any tribe of Indians under the authority of the United States, shall be fined not more than \$500, or imprisoned not more than one year, or both. (See R. S., 2461, 2475.)

SETTING FIRE ON PUBLIC DOMAIN.

SEC. 52. Whoever shall willfully set on fire, or cause to be set on fire, any timber, underbrush, or grass upon the public domain, or shall leave or suffer fire to burn unattended near any timber or other inflammable material, shall be fined not more than \$5,000, or imprisoned not more than two years, or both. (See 31 Stat., 169.)

SEC. 53. Whoever shall build a fire in or near any forest, timber, or other inflammable material upon the public domain shall, before leaving said fire, totally extinguish the same; and whoever shall fail to do so shall be fined not more than \$1,000, or imprisoned not more than one year, or both. (See 31 Stat., 170.)

TRESPASS ON RESERVED PUBLIC LANDS.

SEC. 56. Whoever shall knowingly and unlawfully break, open or destroy any gate, fence, hedge, or wall inclosing any lands of the United States which, in pursuance of any law, have been reserved or purchased by the United States for any public use; or whoever shall drive any cattle, horses, hogs, or other livestock upon any such lands for the purpose of destroying the grass or trees on said lands, or where they may destroy the said grass or trees; or whoever shall knowingly permit his cattle, horses, hogs, or other live stock, to enter through any such inclosure upon any such lands of the United States, where such cattle, horses, hogs, or other live stock may or can destroy the grass or trees or other property of the United States on the said lands, shall be fined not more than \$500, or imprisoned not more than one year, or both: *Provided*, That nothing in this section shall be construed to apply to unreserved public lands. (See 18 Stat., 481.)

GOVERNMENT LANDMARKS AND SURVEYS.

SEC. 57. Whoever shall willfully destroy, deface, change, or remove to another place any section corner, quarter-section corner, or meander post, on any Government line of survey, or shall willfully cut down any witness tree or any tree blazed to mark the line of a Government survey, or shall willfully deface, change, or remove any monument or bench mark of any Government survey, shall be fined not more than \$250, or imprisoned not more than six months, or both. (See 29 Stat., 343.)

SEC. 58. Whoever in any manner, by threats or force, shall interrupt, hinder, or prevent the surveying of the public lands, or of any private land claim which has been or may be confirmed by the United States, by the persons authorized to survey the same, in conformity with the instructions of the Commissioner of the General Land Office, shall be fined not more than \$3,000 and imprisoned not more than three years. (See R. S., 2412.)

PREVENTING BIDS FOR UNITED STATES LANDS.

SEC. 59. Whoever, before or at the time of the public sale of any of the lands of the United States, shall bargain, contract, or agree, or attempt to bargain, contract, or agree with any other person, that the last-named person shall not bid upon or purchase the land so offered for sale, or any parcel thereof; or whoever by intimidation, combination, or unfair management shall hinder or prevent or, attempt to hinder or prevent, any person from bidding upon or purchasing any tract of land so offered for sale, shall be fined not more than \$1,000, or imprisoned not more than two years, or both. (See R. S., 2373.)

INJURY TO UNITED STATES TELEGRAPH, TELEPHONE, OR CABLE LINES.

SEC. 60. Whoever shall willfully or maliciously injure or destroy any of the works, property, or material of any telegraph, telephone, or cable line or system operated or controlled by the United States, whether constructed or in process of construction, or shall willfully or maliciously interfere in any way with the working or use of any such line or system, or shall willfully or maliciously obstruct, hinder, or delay the transmission of any communication over any such line or system, shall be fined not more than \$1,000 or imprisoned not more than three years, or both. (See 18 Stat., 250.)

CONTRACTS BY MEMBERS OF CONGRESS.

SEC. 114. Whoever, being elected or appointed a Member of or Delegate to Congress or a Resident Commissioner, shall, after his election or appointment and either before or after he has qualified, and during his continuance in office, directly or indirectly, himself, or by any other person in trust for him, or for his use or benefit, or on his account, undertake, execute, hold, or enjoy, in whole or in part, any contract or agreement made or entered into in behalf of the United States by any officer or person authorized to make contracts on its behalf, shall be fined not more than \$3,000. All contracts or agreements made in violation of this section shall be void; and whenever any sum of money is advanced by the United States in consideration of any such contract or agreement, it shall forthwith be repaid; and in case of failure or refusal to repay the same when demanded by the proper officer of the department under whose authority such contract or agreement shall have been made or entered into, suit shall at once be brought against the person so failing or refusing, and his sureties, for the recovery of the money so advanced. (See 3739, R. S.)

SEC. 115. Whoever, being an officer of the United States, shall on behalf of the United States directly or indirectly make or enter into

any contract, bargain, or agreement, in writing or otherwise, with any Member of or Delegate to Congress or any Resident Commissioner after his election or appointment as such Member, Delegate, or Resident Commissioner, and either before or after he has qualified, and during his continuance in office, shall be fined not more than \$3,000. (See 3742, R. S.)

SEC. 116. Nothing contained in the two preceding sections shall extend, or be construed to extend, to any contract or agreement made or entered into or accepted by any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or company; nor to the purchase or sale of bills of exchange or other property by any Member of or Delegate to Congress or Resident Commissioner where the same are ready for delivery, and payment therefor is made, at the time of making or entering into the contract or agreement. (See 3740, R. S.)

INJURY TO PUBLIC WORKS ON RIVERS AND HARBORS.

The following is section 14 of an act of Congress making appropriations for the construction, repair, and preservation of certain public works on rivers and harbors, and for other purposes, approved March 3, 1899 (30 Stat., 1121):

SEC. 14. That it shall not be lawful for any person or persons to take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, or in any manner whatever impair the usefulness of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States, or any piece of plant, floating or otherwise, used in the construction of such work under the control of the United States, in whole or in part, for the preservation and improvement of any of its navigable waters, or to prevent floods, or as boundary marks, tide gauges, surveying stations, buoys, or other established marks, nor remove for ballast or other purposes any stone or other material composing such works.

TERRITORIAL JURISDICTION.

The following are sections from the above-mentioned act of March 4, 1909 (35 Stat., 1088):

SEC. 272. The crimes and offenses defined in this chapter shall be punished as herein prescribed: * * *

Third. When committed within or on any lands reserved or acquired for the exclusive use of the United States, and under the exclusive jurisdiction thereof, or any place purchased or otherwise acquired by the United States by consent of the legislature of the State in which the same shall be, for the erection of a fort, magazine, arsenal, dockyard, or other needful building. (See 5339, R. S.)

* * *

SEC. 289. Whoever, within the territorial limits of any State, organized Territory, or District, but within or upon any of the places now existing or hereafter reserved or acquired, described in section two hundred and seventy-two of this act, shall do or omit the doing of any act or thing which is not made penal by any law of Congress, but which if committed or omitted within the jurisdiction of the State, Territory, or District in which such place is situated, by the laws thereof now in force would be penal, shall be deemed guilty of a like offense and be subject to a like punishment; and every such State, Territorial, or District law shall, for the purposes of this section, continue in force, notwithstanding any subsequent repeal or amendment thereof by any such State, Territory, or District. (See 5391, R. S.)

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